UNFERMENTED FRUIT JUICES

HEARING

BEFORE A

SUBCOMMITTEE OF THE
COMMITTEE ON FINANCE
UNITED STATES SENATE

SIXTY-SIXTH CONGRESS.
SECOND SESSION

ON

H. R. 7840

A BILL PROVIDING FOR A TAX ON PURE FRUIT-JUICE BEVERAGES

TUESDAY, MARCH 30, 1920

PART 2

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UNFERMENTED FRUIT JUICES.

TUESDAY, MARCH 30, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE ON FINANCE,
Washington, D. C.

The subcommittee met in the Committee on Finance room in the Capitol, pursuant to call, at 10 o'clock a. m., Senator William M. Calder presiding.

Present: Senators Calder (chairman), Sutherland, and Gore.

Also present: Representative Reed of New York; Representative Shreve, of Pennsylvania; and Representative Begg, of Ohio.

Senator CALDER. Gentlemen, this hearing is held at the request of Representative Reed of New York to permit gentlemen from his part of the State—in fact, anyone who cares to come from any part of the country—to give the committee their views on this revenue tax on grape juice.

We have already had a hearing on the subject before the full Committee on Finance on Wednesday, July 30, 1919, but Representative Reed stated there was information we had no knowledge of and that he wanted us to have in order that we might have all the light possible on the subject.

The chairman of the Finance Committee appointed Senators Sutherland, Gore, and myself a subcommittee to conduct this hearing. While all of the members of the Committee on Finance are not here we wish to assure you that whatever testimony is given will be laid before the full committee for them to consider.

Representative Reed, we will be glad to have you introduce the witnesses..

STATEMENT OF HON. DANIEL A. REED, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK.

Representative REED. Gentlemen of the committee, with your permission I would like to make a very brief statement in regard to the unfermented fruit juice situation, particularly as it applies to grape juice. I covered the facts, I think, quite completely in the original hearing held before the Committee on Ways and Means of the House on July 21, 1919. But there are some points that I want to bring out to-day and try to impress them upon the minds of the members of this committee, and they are these: The opinion seems to prevail that this is a local proposition; that we are here fighting for the interests of the grape growers of Chautauqua County, N. Y., and that grape belt along Lake Erie, and for no other section. As a matter of fact, this comes a long ways from being a local question, and if you will bear with me just a minute I want to show you how far-reaching this legislation is.

We usually think of Michigan and Ohio and New York and California when we refer to grape growing. But I want to show you that

practically every State in the Union has an interest in this legislation. I take the figures which I am now going to give you from the census report of 1910, and I will just run through these figures rapidly to show you how extensive this business is and how it has developed: These figures show the number of vines and number of pounds of grapes produced in the several States in the year 1909:

State.	Vines.	Pounds.
Alabama	287,431	1,723,490

Now, gentlemen of the committee, this covers the whole of Alabama.

States.	Vines.	Pounds.	State.	Vines.	Pounds.
Arizona	131,579	837,842	Connecticut	107,054	1,317,682
Arkansas	805,921	2,593,727	Delaware	260,933	1,938,267
California	141,097,670	1,979,688,525	District of Columbia	5,196	26,530
Colorado	254,292	1,037,614	Florida	20,962	1,088,344

In the State of Florida they are starting into the grape-growing industry, and I just want to pause to explain to you that grape-juice men and grape growers have been going down there to see the possibilities of Florida as a grape-growing State.

Senator SUTHERLAND. Do these figures that you are giving represent commercial or private growers?

Representative REED. No; only the commercial growing of grapes. You will probably see that that is so from the amounts given. And right in that connection I want to say that I can remember in our little belt when in the town of Sheridan, N. Y., there was only about a quarter of an acre in the township, and when in that township there was not any growing of grapes except possibly in a door yard here and there, whereas to-day there are acres and acres of grapes all through that township and we have developed vineyards to the extent of about 42,000 acres in that particular section.

Proceeding with the figures for 1909:

State.	Vines.	Pounds.	State.	Vines.	Pounds.
Georgia	277,658	2,767,366	Indiana	1,049,232	12,817,353
Idaho	68,269	604,227	Iowa	1,983,465	11,708,336
Illinois	2,170,340	16,582,785			

Gentlemen, you can readily see that that is not just a dooryard proposition but is a commercial proposition. And, as to the State of Kansas, I have talked with some of the representatives with reference to their grape business, and they are getting into it in quite a large way.

State.	Vines.	Pounds.
Kansas	2,889,845	6,317,084
Kentucky	607,002	3,680,182
Louisiana	31,041	106,595

In connection with the State of Louisiana we do not think of it as a grape-producing State, but I was recently talking with Representative Martin, who supported this bill most heartily when it was over on the other side of the Capitol, and he interested me very much in telling how the industry is growing in that State.

State.	Vines.	Pounds.	State.	Vines.	Pounds.
Maine	9,731	231,529	Massachusetts	58,277	1,132,838
Maryland	138,801	2,152,382	Michigan	11,913,576	120,695,997

As to Michigan, their representatives, of course, are here to-day, and I am informed that the acreage in grape growing in that State has greatly increased since 1909.

State.	Vines.	Pounds.	State.	Vines.	Pounds.
Minnesota	61,916	203,895	Nevada	26,607	376,205
Mississippi	770,127	760,563	New Hampshire	15,892	375,164
Missouri	3,026,526	17,871,816	New Jersey	1,603,280	6,501,221
Montana	936	370	New Mexico	250,076	425,415
Nebraska	1,221,736	4,752,217	New York	31,802,097	253,006,361

And that brings us down to our State. The acreage has doubled in the Hudson River section since these figures were compiled.

Senator SUTHERLAND. When were these figures taken?

Representative REED. In 1909. Every one of these States has increased its acreage since that time, which I will explain more in detail later. Now, with reference to their markets, they relied to quite an extent, until recently, on the wine market, which has recently been wiped out by the prohibition act.

State.	Vines.	Pounds.	State.	Vines.	Pounds.
North Carolina	411,278	15,116,920	Ohio	8,326,800	43,933,207
North Dakota	379	360	Oklahoma	2,388,213	3,762,727

Oklahoma has gone into grape growing quite extensively. That is a comparatively new State, as Oklahoma is only 31 years old, but——

Senator CALDER (interposing). Just a minute, Representative Reed; Senator Gore, of Oklahoma, is just coming into the room, and I want him to hear these figures.

Representative REED. I beg pardon.

Senator CALDER. I would explain, Senator Gore, that Congressman Reed, of New York, is reading the figures of production of grapes, as shown by the census of 1910, and I wanted you to hear them, especially as he has just reached your State.

Representative REED. Senator Gore, I was just referring to your State, Oklahoma, which was practically a prairie 31 years ago, but had a population 10 years ago of 1,657,155—now probably well toward 2,000,000—and is just beginning to develop her industries, and one of those industries is grape growing. In 1909 Oklahoma was producing 3,762,727 pounds of grapes, which acreage, I dare say, and production has increased greatly since that time.

State.	Vines.	Pounds.	State.	Vines.	Pounds.
Oregon	381,302	3,206,874	Utah	204,445	1,576,361
Pennsylvania	5,271,264	34,020,198	Vermont	9,318	203,011
Rhode Island	7,662	152,937	Virginia	424,701	4,108,694
South Carolina	79,708	2,016,506	Washington	322,007	1,704,005
South Dakota	38,047	144,634	West Virginia	284,070	3,224,751
Tennessee	338,758	1,979,480	Wisconsin	148,070	701,329
Texas	712,201	1,802,618	Wyoming	74	159

The latter State has gone into grape growing in a small way, and I am sure has developed the industry considerably since these figures were taken.

Senator GORE. Rhode Island produced more per vine than any other State that you have read since I came in.

Representative REED. Yes; I believe so.

Senator CALDER. You may continue your statement, Representative Reed.

Representative REED. In regard to location. Grapes can not be grown in all sections of the country, but they can be grown in certain sections of practically every State of the Union, and people have been going into the business in all those sections where they may be satisfactorily grown. Take the section along Lake Erie. Originally the lake was up along the tops of the hills, but it gradually receded, and as it receded, for something like a mile, it left a fine beach of gravel and sand. And then when it receded for, perhaps another mile, it left another beach, so that all along those various levels in that Lake Erie section we have a soil particularly adapted to grape raising, because it is composed of gravel and sand and is porous and has a deep subsoil.

They found some years ago that they could raise grapes in that section and started in in a small way. While I have read the total acreage devoted to grape raising, and there are some large farms with 100 acres of grapes, yet you can figure on the average about 6, 7, or 8 acres to the farm. That means that some one person, some man, or a man and his wife, and their children, are interested in some little vineyard, and they are devoting the most of their attention to that work in connection with some of their other farm work. They have found that some section of their farm is adapted to grape raising, and that they can make a profit from the growing of grapes, which means the difference between a profit and a loss on the little farm. They have developed these little vineyards until they have an acreage of 42,000 acres in that section. And why? Because the soil is adapted for grape growing. Because there is an atmospheric drainage there. They have also a water drainage. And further, ice comes in the winter and stays in Lake Erie until late in the spring, which holds the buds back until very late in the spring. That prevents them from being frozen. In the fall the lake is warm, continuing the warmth of the summer, which tempers the atmosphere until the grapes can be matured.

In nearly all but the Southern States you will find that grapes are grown near bodies of water.

The people in developing this business have had to put in a special line of farm implements. You gentlemen may not know anything about the expense of this part of the business, certainly not unless

you have been in the business, and I will explain that there are grape wagons and spraying machines and all sorts of other paraphernalia especially adapted for the tilling and growing of grapes. They have to have boarding houses for their help, and have to harvest their grape crops in a very short space of time. In about four weeks they have to make this turnover. They have to put money in good roads. They have to harvest grapes well up in November, and must have good roads on which to haul them.

In 1917 they put a tax of 1 cent a gallon on grape juice.

Senator CALDER. On grape juice?

Representative REED. Yes, sir.

Senator GORE. When was this?

Representative REED. In 1917. In 1918 the House passed a bill putting a tax of 20 per cent on grape juice, and that included the containers of the fruit. The bill came over to the Senate, and the grape growers and the grape juice manufacturers were caught almost unawares and did not have time to thoroughly present the facts of their situation. However, with their late information on the subject, they did bring before the committee here facts which caused this committee to see the injustice, and you reduced that tax to 10 per cent. Now they are carrying that load of 10 per cent. This bill here proposes to make the tax two cents on the gallon. What we are going to show you gentlemen to-day by witnesses is, how this tax is affecting the grape industry. In other words, there is a tax on grapes under this law that is now in existence of about $32 a ton. The question comes in whether manufacturers can absorb that tax and go on with the business.

Senator GORE. You say that is what the tax amounts to to-day?

Representative REED. Yes, sir; about $32 a ton. That will all be brought out by the witnesses who are here to be heard.

Senator GORE. This 10 per cent tax?

Representative REED. Yes, sir.

Senator SUTHERLAND. What will the proposed tax amount to per ton on grapes?

Representative REED. That I will show you by witnesses. I am not testifying on that point.

Senator CALDER. It amounts to $32 on every ton of grapes?

Representative REED. Yes, sir. And we will show you later the amount of the fountain tax that they also pay.

Senator CALDER. What is a ton of grapes sold for?

Representative REED. They used to sell when we were raising them on our old farm for about $10 or $12 a ton. Those prices worked along until we went out of business. We found we could not make it pay at those prices. But a lot of these people have struggled along hoping almost against hope that the next crop would be profitable and continuing the business because they had started it and did not like to do away with their vines. And some years they have a crop and some years they do not have a crop.

Senator SUTHERLAND. What did they get last year for their grapes?

Representative REED. I will have to show you that by the witnesses we have here. In this preliminary statement that I am making I want you to realize that this tax is injuring the industry very seriously, an industry that has spread all over the country and is not confined to our particular district.

I am now going to call——

Senator CALDER (interposing). Are the grapes you are referring to used solely for grape juice and no other purpose?

Representative REED. No; but I will show you that in connection with the testimony of these witnesses. But the important thing is the market. They depended first on selling grapes for the table. Grapes went out in 9-pound baskets, and later on in 20-pound baskets. But in that way they really glutted the markets where they went, because the expense was so great that they could not move them across the country, and they had to have refrigerator cars, and then when they were unloaded the grapes would frequently spoil on the hands of the dealers.

Finally they got a wine market, and turned their grapes over to the wine industry. Then came along the grape juice industry, and between the three markets for grapes—the table grape, the wine industry and the grape juice business—growers found a reasonably good market, and were beginning to do business, and were in a position to save this vast acreage devoted to the growing of grapes. Then, prohibition came along and wiped out the wine market. Now all they have is the grape juice market and the few grapes they can sell for the table.

So, gentlemen of the committee, unless this tax is reduced to a reasonable amount it means that the grape-juice men are going out of business. They can not stay in business with this tax on it; that means a destruction of the grape-growing business.

I want to tell you that those sections which have developed the grape industry—like we have developed it up in our section—would look very much like Belgium after the German invasion if they have to tear out those vines. The roots go down into the ground and absorb the sustenance of the soil, and as fertilizer sells for around $100 a ton those men can not pay that price in order to renew the soil, and if those grape vines are taken out that property will be practically destroyed, amounting to 42,000 acres in that particular section.

Senator GORE. What section are you speaking of?

Representative REED. Along Lake Erie in New York State and in Pennsylvania.

Senator SUTHERLAND. And in Ohio?

Representtive REED. Yes, sir; and that is true of Michigan, from whose representatives you will hear to-day.

Senator GORE. What grape is best adapted to the production of grape juice?

Representative REED. They can make grape juice from practically any grape except raisin grapes. Mr. Lee is here from California and can tell you whether raisin grapes can be made into grape juice or not.

Senator SUTHERLAND. The Concord grape is best adapted for that purpose, isn't it?

Representative REED. Yes, sir; that is the best grape for that purpose.

Now, gentlemen of the committee, I am going to ask Congressman Shreve to say a few words.

Senator CALDER. The committee will be very glad to hear Representative Shreve.

STATEMENT OF HON. MILTON W. SHREVE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA.

Representative SHREVE. Mr. Chairman and gentlemen of the committee, I had the honor to appear before this committee at its hearing last July. I happened to be the only grape-grower present on this occasion. But I am very happy to-day to see that there are grape growers here representing several States of the Union. What little I have to say will simply corroborate the statements I made at that time. I felt a little uneasy then about the future of the grape business. I feel more so now. It is a fact that we had a pretty good price last year for grapes, but there were reasons for it. In the first place there was a great deal of competition among the grape juice plants as to who should acquire the largest stock. I am told, however, that they have not been able to market their products as readily as they had anticipated. Then there was a certain alarm among citizens who thought there would be less opportunity to secure grapes for making wine. We might as well be absolutely frank about this thing, gentlemen. I think some of the large shippers who are here to-day will tell you that possibly 50 per cent of the grapes shipped last year were for wine purposes. That market is now wiped out. And with the grape-juice people overstocked, and with the basket business practically ruined, and with grapes being grown in every State of the Union, it seems that the future of the business is not very hopeful unless we can reduce this tax.

It will be shown to you that the tax is not taken out of the consumer as it was originally planned but really comes out of the grower. I can not say to just what extent or how much we have to pay, but we know this: We know that we can not raise grapes unless we can procure fertilizer, and we know that we can not buy fertilizer now for less than about $100 a ton, and with the great expense connected with growing grapes, which, I think, is estimated for all over the country to be about $100——

Senator GORE (interposing). $100 what?

Representative SHREVE. A ton.

Senator GORE. To produce?

Representative SHREVE. Yes, sir. It depends altogether on the fertility of the soil, and therefore some grapes are produced for less money and some for more money. I imagine the average of the crop would run about $100 a ton.

Senator GORE. What was the average price last year?

Representative SHREVE. I sold grapes last year to the Welch Grape Juice Co., my first sale for $85 a ton. Then they raised the price to $90 a ton, and for the last shipments I received $95 a ton.

Senator GORE. Do you figure that that is less than cost of production?

Representative SHREVE. Yes, sir; less than the average cost of production. Of course, a farmer takes his farm as a general proposition, and if he made any money, all right, and if he lost as a whole, then he suffered a loss. He does not keep an accurate account of the various crops, like some business men do.

Senator GORE. What was the ruling price for grapes last year? You say you sold some for $85 a ton and some for $90 a ton and some

for $95 a ton; but what was the average ruling price all over the country for grapes?

Representative SHREVE. Well, I presume it was about that price. Although I am told that the shippers paid more than the grape-juice people did last year—carrying out the theory we had that the tax was going to be taken out of the grower.

Senator GORE. In estimating cost of production do you count the tax in as a part of that $100?

Representative SHREVE. Oh, no; we never have. We have never had to pay this tax. That is the reason why we say that if we have to pay the tax of $32 a ton we might as well quit business. There is nothing that we can substitute. There is no way that we can well use these lands except for grapes, and if that business is destroyed you can see what it will mean to the very large number of people engaged in the growing of grapes.

Senator GORE. Do you mean that you did not pay this tax last year?

Representative SHREVE. No; because, as you will see, the tax was not applied last year. But the grape people will this year have to pay the tax unless something is done. I understand that the tax was not levied on the crop of the year before.

Senator CALDER. Of course, the tax can not be levied directly on you?

Representative SHREVE. No; but the law was not in effect at that time.

Senator GORE. This tax was in the law of last year.

Representative SHREVE. The grape juice was marketed then.

Senator GORE. It is just going on the market now?

Representative SHREVE. Yes, sir; in December, January, and February. Grape-juice people for the first time are now beginning to pay their tax. They are beginning to feel the effect of it and to find that the consuming public will not use grape juice at the price which must be charged therefor. But there are men here who will show you how it works out.

Senator GORE. How many gallons of grape juice are there to a ton of grapes?

Representative SHREVE. One hundered and fifty or one hundred and sixty gallons per ton.

Senator GORE. How much is it worth a gallon?

Representative SHREVE. I am not an expert on that and can not answer. But there are gentlemen here who can answer all those questions.

I introduced a bill in the House providing for a tax of 2 cents a gallon. The grape grower is perfectly satisfied to pay that.

Senator GORE. This 10 per cent runs up to what? Somebody tell me what a gallon of grape juice is worth on the average.

Representative SHREVE. The other witnesses will get to that in a minute.

Senator GORE. I would like to have the information now because I can not be here all morning, as much as I would like to remain.

Representative SHREVE. All right. Mr. Falvay has a great deal of valuable information that he wishes to present to the Committee, and I will discontinue my statement now in order that he may make his.

Senator GORE. No; Representative Shreve, I do not wish you to stop at all. But I would just like to have this information before I leave, because I must leave within a few minutes to go to another committee.

Representative SHREVE. We will be glad to furnish that information. I think the objection from my people is simply from the standpoint that they can not carry on the business with this tax. I now wish to present for the information of the committee a petition along this line:

(The petition referred to is here printed in full in the record, as follows:)

NORTH EAST, PENNSYLVANIA, *March, 1920.*

The Senate of the United States:

Your petitioners respectfully show, that they are fruit growers, residents of Pennsylvania, and are engaged, and for many years have been engaged, in the raising of fruits, chiefly grapes, the business beginning on or about 1855.

From the nature of the business, the planting and caring of vineyards, no other business, horticultural or agricultural can be substituted without great loss: and from the nature of the location, situation and climate, no other business can profitably be substituted for said business of fruit growing.

The county of Erie, in Pennsylvania, forms part of the so-called Chautauqua or Lake Erie fruit belt, widely known as a productive fruit region, and doubtless the most important grape producing region, not merely in Pennsylvania, but east of the Mississippi River; this stated with no desire to underestimate like interests in other parts of eastern United States.

By the present law a tax of 10 per cent is levied and collected on grape juice, which practically amounts to a tax of $37.50 per ton on every ton raised in the Chautauqua, Lake Erie fruit belt.

This tax as provided by law is levied on grape juice, but in actual operation, the tax comes out of the grape growers, thereby so lessening the income derived from grape growing as to be an intolerable burden and destructive of the business of grape-growing.

The statement accompanying this petition shows the actual cost of conducting the grape-producing business.

Therefore your petitioners respectfully request that the tax law be so modified as to make possible the continued conduct of the grape-growing business, to wit, by so taxing fruit juices as not to ruin the producers of fruit.

To this end your petitioners urge the adoption of such a tax as shall, while producing income from fruit juices, not ruin an established and very extensive business in horticulture.

The enormous cost of living, together with high taxes and the greatly increased cost of labor, and, in general, the actual growing of all farm products, including fruit of various kinds, make it imperative that the fruit producers shall not be driven out of business and reduced to poverty.

They have invested heavily in the business; they are permanent American citizens, taxpayers, freeholders, and, perfectly willing as they are to contribute to the expenses of the Government, are alarmed at the condition and by the condition which invalidates their business and deprives them of the fruit of their labors

A slight modification of the tax will produce an equal if not a greater income to the Government and at the same time not ruin a legitimate business.

A bill already passed by the House of Representatives will, in the opinion of your petitioners, solve the grave problem now confronting them, and your petitioners respectfully urge the enactment of this bill into a law.

(Signed:)

	Acres of vineyard.		Acres of vineyard.
R. H. MacBroon	60	H. L. Wheeler	30
W. M. Morrow	35	M. S. Kidder	40
James A. and John E. Mottier	160	J. D. Past	17
Geo. E. Pierce	62	G. D. Bogart	13
R. L. Burgess	30	William W. Raynor	17
R. E. Strickland	22	Mrs. B. H. Ross	12
W. T. Griffin	45	Mrs. Esther Fuller	15
W. E. Marshall	19	H. H. Johnson	19

	Acres of vineyard.
E. Carris	5
H. A. Chapin	5
J. W. Harper	18
J. B. Brigham	18
H. F. Youngs	15
J. J. Campbell	12
O. S. Kidder	40
S. Newton	20
B. R. Pierce	35
G. Elwood Miller	16
C. G. Barker	8
W. E. Smith	14
Charles Wright	5
R. Harley Young	7
R. S. Finn	4
Charles A. Leet	25
G. C. Briggs	20
F. A. Pierce	12
F. Fromyer	40
R. E. Pierce	12
Len Platt	5
W. M. White	3
Ralph Youngs	32
G. W. Kerr	18
R. A. McElhaney	16
N. H. Nixon	15
C. F. Schutz	6
J. H. Taber	3
Charles Harper	17
Blaine and Luke	100
J. S. Whitehall	60
R. N. Smith	16
Sarah Stetson	8
Frank Haloran	6
Burt Archer	20
Chas. F. Gomolt	4
C. S. Rost	9
U. M. Luke	5
Mrs. A. B. Dudley	6
R. E. Bliss	9
W. H. Gannon	18
M. H. Brown	28
J. E. Bealtz	25
Lawrence D. Bindey	38
W. J. Specht	3
W. F. Schultz	4
John F. Miller	18
G. N. Felton	16
H. L. Law	18
Boan Bros	20
Isaac Ackerman	18
John Garrmon	9
A. I. Youngs	18
J. C. Burch	60
R. A. Page	14
G. B. Hopkins	8
Theo. Sprague	25
O. S. Sheridan	50
M. F. Thompson	5
Gill & Adams	40
C. S. Darling	10
Geo. Carnahan	10
S. E. Caranahaw	12
Charles H. Hays	25
Frank Ryweald	6
Wm. Salshow	5

	Acres of vineyard.
A. W. Rywald	20
G. H. Conflingen	15
J. C. Ahrens	35
John C. Robinson	8
Charles Youngs	8
C. O. Bell	10
Prospect Park Fruit Farm Co	65
J. C. Grene	12
C. L. Carnahan	14
D. C. Bostwick & Son	45
G. Will Butts	65
G. M. Kelly	45
C. W. Orton	20
L. G. Youngs	68
E. F. Shunk	10
S. J. Ackerman	12
H. S. Loop	14
John H. Stebbins	54
A. H. Ouilty	64
J. M. Burden	23
J. M. McLeod	25
Geo. Standish	45
M. D. Phillips	15
C. M. Short	25
C. J. Southwick	4
S. A. Edwards	1½
C. A. Green	5½
G. E. Smith	2½
J. J. Graham	5
H. R. Orton	18
B. C. Spooner	20
C. M. Small	2
J. G. Southwick	14
Lee Peck	30
E. A. Orton	25
B. T. Southwick	25
Geo. Seiford	30
Frank Bingham	28
F. S. Orton	13
W. T. Crawford	28
C. F. Amidon	20
Frank C. Bradt	6
James P. Sheridan	30
Owen Sheridan	40
T. B. Sheridan	25
B. F. Ross	24
W. K. Stow	20
U. U. Jackson	4
A. H. Murphy	15
Page Bros	26
Robert C. Page	13
P. C. Wolf	12
J. M. Slade	6
W. R. Covert	12
Willis Camp	10
C. H. Taber	3
M. D. Covert	15
A. L. Baugher	2½
F. D. Covert	14
F. H. Walker	10
Henry Schieffertie	8
L. L. Bemiss	14
John Roach	10
Anthony Farnsworth	10
S. M. Butler	2
W. J. Stelli	12

	Acres of vineyard.
W. W. Farver	36½
Arthur Bemiss	18
Leo J. Hirz	11
C. L. Krull	25
M. C. Ahlquin	5
Krull Bros.	33
Wm. Hillary	25
John C. Schultz	20
J. A. McGuire	10
Dr. Wm. W. Jones	30
Page Bros.	26
A. B. S. Robinson	116
John N. Stone	24
R. W. Hutchison	14
Henry Meary	14
F. C. Williams	15
E. N. Beckwith	20
Fred Ahrens	14
Seth F. Haskell	12
Haskell Bros.	100
J. W. Orton	22
E. M. Foye	10
M. E. Orton	18
F. B. Crawford	60
Mrs. L. D. Selkiegg	45
James B. Spruce	60
L. E. Seeley	14
S. W. Kull	35
J. A. Burrows	42
Harry Youngs	8
J. J. Phenes	32
O'Brien & Furman	9
Mary N. and Anna B. Dodge	20
Walter Davison, for C. A. Davison estate	21
F. B. Sheridan	24½
B. C. Weld	8
C. A. Bell	15
H. W. Sornsen	7
F. E. Porter	5
Freeman E. Bellbe	10
H. W. Northrup	7
Louis G. Hayward	5
John F. Sheridan	23
H. L. Morse	12
F. C. Discher	8
F. O. Buckley	2
L. O. James	10
Harry Alcorn	13
Geo. Kendrick	12
Ira J. Dunn	61
A. R. Luce and D. H. Luce	24½
W. N. Ripley	4
A. Moorehead	12
F. H. Lossee	13
Gordon C. Merritt	5
K. C. Kozlowski	11
Jos. Graczyk	5½
W. W. Thompson	12
W. H. Bliley	12
L. G. Kinsinger	5
A. L. Edwards	2½
C. F. Bayer	24
J. M. Kinsinger	2
O. Brunett	4
J. W. Barton	4
Arthur Vogel	10
W. H. Frazier	9
John L. Mahan	26
W. R. Hinkler	10
M. Richter	21
Harry Neff	10
W. H. Crabb	15
B. F. Chambers	25
J. M. Moorhead	32
C. Henrickson	3
C. E. Bard	14
C. W. Sturdivant	12
Leo Larson	3
R. E. and M. J. Moorehead	18
M. B. Moorehead	3
R. J. Kelsk	6
Letitia B. Cargo	12
C. Swanson	8
A. W. Ferris	15
H. H. Jackson & Sons	10
Frank Randolph	8
C. W. Shreve	17
J. Zweigert	10
Loreto Ogniben	8
F. K. Dawdy	5
F. S. Pease	3
E. H. Rickart	3
F. R. Nichols	8
J. B. McLaughlin	12
T. R. Prendergast	12
F. John Whintell	55

Representative SHREVE. Mr. Chairman, we will now call Mr. Falvay, so that he may answer Senator Gore's question.

Senator CALDER. We will be very glad to hear Mr. Falvay. Please give youe name to the reporter.

STATEMENT OF MR. D. K. FALVAY, PRESIDENT CHAUTAUQUA AND LAKE ERIE FRUIT GROWERS' ASSOCIATION, STATE OF NEW YORK, WESTFIELD, N. Y.

Mr. FALVAY. My statement——

Senator CALDER (interposing). Suppose you answer Senator Gore's question before you begin your regular statement.

Mr. FALVAY. Very well. This is on cost of production, Senator Gore, and the total cost of manufacture, and that is not on what is to be put out in the present season but what was done in 1919. We could not give you the exact figures this year on account of the additional cost, and labor conditions, and so on, but the cost of production in 1919, based on pints, two dozen per case, containing three gallons, was $4.86.

Senator GORE. For three gallons?

Mr. FALVAY. Yes, sir; and adding 57 cents war tax would make a total of $5.43.

Senator GORE. And the figures, $4.86, represent what?

Mr. FALVAY. That is the total cost of manufacturing a case of three gallons of grape juice.

Senator CALDER. When you say $4.86, does that include the containers?

Mr. FALVAY. That includes everything.

Senator CALDER. Is that the price at which the 3 gallons were sold?

Mr. FALVAY. That is the manufacturer's price. That is the actual cost to the manufacturer.

Senator SUTHERLAND. That is not the price at which he sold it?

Mr. FALVAY. No, sir.

Senator SUTHERLAND. That is the cost of production?

Mr. FALVAY. Yes, sir.

Senator CALDER. Is the tax levied upon that?

Mr. FALVAY. Yes; the tax is levied on $4.86. In addition to that there is the cost of bottles, cases, manufacturing and freight, 1919, of $2.61 for a 3-gallon case.

Senator GORE. In addition to that?

Mr. FALVAY. No; that is included in the cost of producing the juice.

Senator GORE. Then the figures $4.86 includes the bottles, containers, and other expenses?

Mr. FALVAY. Yes, sir.

Senator GORE. So that $4.86 does not represent exclusively grape juice, but the total cost of preparing it for market?

Mr. FALVAY. The actual cost of the juice itself was $2.25 for 3 gallons.

Senator GORE. But the tax attaches to the whole cost?

Mr. FALVAY. Yes, sir; everything.

Senator CALDER. The tax attaches to the bottles, cases, and so on?

Mr. FALVAY. To the bottles, boxes, labels, freight, and so on. If the freight is prepaid the tax must be paid on that.

Senator GORE. But the cost of the juice alone is $2.25 for 3 gallons. So that more than one-half of the tax attaches to something else?

Mr. FALVAY. About 52 per cent or 53 per cent of the tax paid attaches to things outside of the juice.

Senator GORE. What do you estimate is the food value of grape juice?

Mr. FALVAY. Well, they claim that it is greater than milk, but I am not a chemist and can not tell you about that.

Senator GORE. Does anybody here know about that?

Senator CALDER. Mr. Reed, have you anybody who can answer that question?

Representative REED. I think Mr. Loomis, a member of the legislative committee of the Chautauqua & Lake Erie Fruit Growers' Association, can answer that question.

Senator CALDER. We will be glad to have Mr. Loomis answer the question for Senator Gore.

Mr. LOOMIS. No; we have not brought any representatives of the manufacturers here on that proposition. But as long ago as 1902 or 1903 I prepared a statement on this subject for Bailey's Encyclopedia of American Agriculture, which went through, and it was accepted as the statement on this matter, and it said that the value of grape juice is practically equivalent to that of milk, with the exception of the protein content of milk, which is not contained in grape juice.

Mr. FALVAY. I think it is as 18 to 21.

Mr. LOOMIS. This is a meeting of the grape producers and not of representatives of the grape manufacturers.

Representative REED. I would like to have Mr. Falvay continue his statement now. But preliminary to that I would like to introduce into the hearings some statements showing grape production throughout the United States.

Senator CALDER. That may be put in.

(The statements referred to are here printed in full in the record, as follows:)

Grape crop of 1909.

[Report of United States Census.]

County.	Number of vines.	Production.	County.	Number of vines.	Production.
ALABAMA.		*Pounds.*	ALABAMA—continued.		*Pounds.*
Autauga	2,558	15,324	Lawrence	3,924	28,450
Baldwin	10,315	22,550	Lee	954	9,848
Barbour	70	1,222	Limestone	6,312	8,530
Bibb	3,855	26,742	Lowndes	69	2,470
Blount	3,273	23,345	Macon	2,339	17,496
Bullock	111	2,250	Madison	10,802	23,124
Butler	312	9,500	Marengo	363	2,118
Calhoun	2,607	18,102	Marion	9,249	42,667
Chambers	3,082	15,181	Marshall	6,269	25,191
Cherokee	2,299	11,290	Mobile	18,189	58,073
Chilton	11,524	56,302	Monroe	300	5,854
Choctaw	312	1,927	Montgomery	136	1,270
Clarke	145	1,516	Morgan	9,116	97,800
Clay	4,668	40,259	Perry	283	6,120
Cleburne	8,797	40,412	Pickens	778	6,755
Coffee	884	54,261	Pike	791	3,460
Colbert	6,516	12,597	Randolph	3,939	51,578
Conecuh	146	1,014	Russell	236	804
Coosa	1,567	10,080	St. Clair	7,849	60,105
Covington	1,095	85,603	Shelby	5,017	32,209
Crenshaw	700	26,578	Sumter	74	745
Cullman	42,994	108,515	Talladega	1,034	13,816
Dale	115	1,375	Tallapoosa	2,764	30,117
Dallas	190	2,077	Tuscaloosa	4,618	55,295
Dekalb	5,592	47,835	Walker	3,960	23,090
Elmore	1,091	7,875	Washington	9,149	57,056
Escambia	1,144	12,560	Wilcox	148	2,959
Etowah	4,041	54,389	Winston	1,559	12,408
Fayette	1,259	12,330			
Franklin	5,590	20,573	Total	287,431	1,723,490
Geneva	331	16,173			
Greene	98	3,749	ARIZONA.		
Hale	158	2,804			
Henry	130	1,060	Apache	57	300
Houston	307	36,479	Cochise	5,275	12,862
Jackson	8,363	42,260	Cococino	399	4,025
Jefferson	25,441	132,103	Gila	181	1,500
Lamar	1,205	23,414	Graham	10,727	95,870
Lauderdale	14,289	33,381			

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
ARIZONA—continued.		*Pounds.*
Maricopa	72,320	502,181
Mohave	7,662	32,800
Navajo	171	550
Pima	179	1,000
Pinal	3,386	8,500
Santa Cruz	158	650
Yavapai	22,659	94,384
Yuma	8,405	83,220
Total	131,579	837,842
ARKANSAS.		
Arkansas	4,388	21,635
Ashley	740	9,525
Baxter	2,723	10,541
Benton	15,599	49,951
Boone	3,816	22,671
Bradley	2,081	25,890
Calhoun	878	18,213
Carroll	5,351	10,722
Chicot	104	1,345
Clark	5,942	7,850
Clay	3,128	30,300
Cleburne	12,059	37,185
Cleveland	1,215	11,840
Columbia	2,143	7,377
Conway	45,850	109,711
Craighead	6,333	26,119
Crawford	3,710	8,445
Crittenden	312	4,256
Cross	1,388	3,445
Dallas	843	3,233
Desha	31	700
Drew	934	9,284
Faulkner	20,167	33,162
Franklin	80,048	628,125
Fulton	1,486	4,726
Garland	4,407	3,516
Grant	2,375	13,175
Greene	5,462	56,653
Hempstead	1,380	10,190
Hot Spring	6,761	8,507
Howard	1,714	4,303
Independence	7,572	60,078
Izard	3,306	12,184
Jackson	3,168	15,975
Jefferson	419	4,220
Johnson	58,228	250,965
Lafayette	2,250	9,161
Lawrence	6,145	17,231
Lee	6,548	40,350
Lincoln	160	1,546
Little River	2,466	1,295
Logan	60,059	160,731
Lonoke	5,147	26,562
Madison	2,415	8,942
Marion	1,101	5,840
Miller	6,444	3,799
Mississippi	834	9,282
Monroe	301	2,510
Montgomery	10,066	10,335
Nevada	1,384	8,802
Newton	854	4,157
Ouachita	803	5,914
Perry	11,104	19,943
Phillips	382	3,316
Pike	2,231	4,081
Poinsett	2,621	25,755
Polk	12,539	16,349
Pope	21,755	64,041
Prairie	5,370	13,505
Pulaski	25,777	34,981
Randolph	7,122	20,478
St. Francis	401	3,091
Saline	120,338	106,936
Scott	16,510	24,463
Searcy	1,407	9,714
Sebastian	26,342	19,802
Sevier	1,303	6,602
Sharp	31,242	13,283
Stone	1,840	8,711
Union	1,496	39,694
Van Buren	5,432	18,988
Washington	50,511	147,358
White	19,069	58,457
Woodruff	286	3,234
Yell	17,805	78,471
Total	805,921	2,593,727
CALIFORNIA.		
Alameda	2,390,959	20,671,600
Alpine	9,000	56,000
Amador	314,604	2,743,320
Butte	258,742	1,499,000
Calaveras	212,300	1,457,030
Colusa	482,417	5,010,240
Contra Costa	2,972,130	32,217,131
Del Norte	581,342	4,891,740
Fresno	40,687,207	611,253,961
Glenn	20,416	145,300
Humboldt	4,095	76,405
Imperial	298,813	1,210,475
Inyo	39,478	292,730
Kern	419,582	1,715,540
Kings	4,538,732	91,434,166
Lake	296,752	1,750,522
Lassen	31	800
Los Angeles	4,923,877	44,846,307
Madera	1,530,630	21,105,970
Marin	115,198	1,982,560
Mariposa	28,647	285,740
Mendocino	924,191	6,471,050
Merced	1,281,342	12,085,751
Modoc	795	7,100
Mono	2,000	20,000
Monterey	79,935	754,340
Napa	8,595,338	66,876,897
Nevada	94,338	757,865
Orange	282,682	2,684,855
Placer	1,310,132	11,231,830
Riverside	1,570,794	12,133,389
Sacramento	7,627,510	399,336,705
San Benito	177,976	1,620,030
San Bernardino	5,987,127	38,608,263
San Diego	1,228,858	15,201,430
San Francisco	3,000	10,000
San Joaquin	13,371,794	175,879,915
San Luis Obispo	265,481	1,937,110
San Mateo	124,990	695,440
Santa Barbara	208,595	590,485
Santa Clara	5,584,480	41,129,250
Santa Cruz	1,365,414	7,315,935
Shasta	117,481	643,463
Siskiyou	2,473	44,507
Solano	1,213,265	16,270,990
Stanislaus	1,932,302	18,595,445
Sonoma	17,939,972	137,550,285
Sutter	1,249,923	25,162,300
Tehama	1,307,218	16,416,690
Trinity	2,842	57,950
Tulare	7,227,491	95,037,424
Tuolumne	95,811	580,502
Ventura	36,398	505,892
Yola	2,568,019	26,109,390
Yuba	162,751	2,652,510
Total	144,097,670	1,979,686,525
COLORADO.		
Adams	25	200
Arapahoe	63	.....
Archuleta	135	.....
Baca	299	910
Bent	1,263	2,100

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
COLORADO—continued.		*Pounds.*
Boulder	12,499	184,705
Cheyenne	42	.....
Delta	15,111	90,260
Fremont	136,884	302,600
Garfield	1,724	18,410
Huerfano	1,100	.....
Jefferson	7,870	61,084
Kiowa	24	.....
La Plata	20	300
Larimer	285	6,743
Las Animas	65	1,150
Lincoln	130	.....
Logan	5	.....
Mesa	42,657	184,740
Montezuma	1,273	9,100
Montrose	7,146	45,001
Morgan	356	50
Otero	13,300	103 054
Prowers	5,078	6,970
Pueblo	6,634	18,800
Sedgwick	12	250
Washington	71	402
Weld	34	10
Yuma	175	25
Total	254,292	1,037,614
CONNECTICUT.		
Fairfield	10,393	169,317
Hartford	23,332	220,327
Litchfield	5,692	72,947
Middlesex	9,633	162,951
New Haven	46,530	520,565
New London	3,215	63,703
Tolland	7,147	86,863
Windham	1,112	21,006
Total	107,054	1,317,682
DELAWARE.		
Kent	189,287	1,563,228
New Castle	62,074	304,961
Sussex	9,602	70,078
Total	260,963	1,938,247
DISTRICT OF COLUMBIA.		
District of Columbia	5,196	26,530
FLORIDA.		
Alachua	421	24,175
Baker	64	17,487
Bradford	194	16,995
Brevard	3	250
Calhoun	123	18,085
Citrus	188	2,150
Clay	2,299	14,025
Columbia	457	46,120
Dade	64	35
De Soto	45	1,925
Duval	1,182	57,000
Escambia	2,238	11,658
Franklin	50	1,944
Gadsden	580	95,601
Hamilton	147	19,690
Hernando	86	3,464
Hillsboro	182	7,996
Holmes	202	29,935
Jackson	258	9,785
Jefferson	17	180
Lafayette	102	39,102
Lake	143	7,562
Lee	71	3,310
Leon	125	9,897
Levy	210	15,275
FLORIDA—continued.		
Madison	18	650
Manatee	131	16,985
Marion	3,014	34,203
Nassau	183	15,291
Orange	1,303	26,451
Osceola	7	326
Pasco	156	7,432
Polk	215	6,710
Putnam	827	66,315
St. John	1,239	71,370
St. Lucie	4	.....
Santa Rosa	219	17,865
Sumpter	6	120
Suwanee	713	153,791
Taylor	90	5,206
Volusia	1,034	80,072
Wakulla	40	3,615
Walton	733	39,836
Washington	1,579	86,400
Total	20,962	1,086,344
GEORGIA.		
Appling	608	67,260
Baldwin	4	8
Banks	2,475	50,001
Bartow	1,005	9,170
Ben Hill	2,177	20,240
Berrien	558	24,055
Bibb	2,352	7,260
Brooks	386	12,217
Bryan	266	50,824
Bulloch	1,478	68,016
Burke	12	327
Butts	2,687	10,179
Camden	155	67,001
Campbell	5,850	8,650
Carroll	13,489	211,713
Catoosa	655	3,800
Charlton	306	48,146
Chatham	170	11,114
Chattahoochee	117	9,385
Chattooga	750	7,454
Cherokee	1,444	7,015
Clarke	2,192	41,747
Clayton	9,045	30,480
Cobb	11,791	54,429
Coffee	430	23,892
Colquitt	752	7,340
Columbia	277	5,840
Coweta	4,181	25,900
Crawford	367	3,310
Crisp	628	2,230
Dade	799	2,187
Dawson	543	7,390
Decatur	5,149	30,262
Dekalb	10,602	42,361
Dodge	1,291	3,045
Dooly	144	405
Douglas	3,712	11,819
Early	18	2,468
Effingham	507	40,604
Elbert	2,162	26,871
Emanuel	623	101,949
Fannin	463	6,420
Fayette	11,251	34,700
Floyd	7,143	52,297
Forsyth	1,158	13,405
Franklin	1,604	17,097
Fulton	6,508	24,617
Gilmer	855	16,745
Glynn	9	2,450
Gordon	1,100	7,281
Grady	285	33,088
Greene	925	4,545
Gwinnnett	7,955	80,414
Habersham	7,620	20,672
Hall	2,551	33,763

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
GEORGIA—continued.		*Pounds.*
Hancock	659	3,970
Haralson	8,978	23,876
Harris	973	4,975
Hart	1,770	31,431
Heard	2,436	27,860
Henry	757	4,813
Houston	634	4,320
Irwin	620	61,767
Jackson	5,413	37,535
Jeff Davis	130	9,315
Jefferson	205	2,570
Jenkins	170	31,130
Johnson	78	4,330
Jones	19	235
Laurens	245	5,433
Lee	8	150
Liberty	328	23,922
Lincoln	992	6,580
Lowndes	485	9,123
Lumpkin	578	4,090
McDuffie	1,500	1,000
McIntosh	89	16,693
Macon	75	5,660
Madison	1,180	17,577
Marion	812	29,946
Meriwether	515	6,640
Milton	1,093	1,930
Mitchell	100	250
Monroe	734	4,162
Montgomery	641	70,914
Morgan	1,115	11,106
Murray	680	2,800
Muscogee	320	2,300
Newton	3,548	5,722
Oconee	3,560	27,708
Oglethorpe	1,712	8,449
Paulding	2,708	20,605
Pickens	283	1,506
Pierce	587	24,772
Pike	5,500	7,695
Polk	4,996	12,889
Pulaski	3,123	200
Putnam	326	3,550
Quitman	56	1,085
Rabun	1,400	3,745
Randolph	69	4,520
Richmond	739	25,550
Rockdale	2,607	10,490
Schley	843	15,700
Screven	215	43,040
Spalding	7,369	14,375
Stephens	392	7,646
Stewart	76	691
Sumter	1,046	5,120
Talbot	139	1,250
Taliaferro	258	5,400
Tattnall	290	26,814
Taylor	199	12,635
Telfair	1	400
Terrell	30	2,665
Thomas	38,767	153,525
Tift	2,300	36,090
Toombs	391	36,130
Towns	61	245
Troup	628	12,750
Turner	331	6,806
Union	948	11,341
Upson	525	8,325
Walker	5,155	25,703
Walton	2,117	10,809
Ware	240	72,655
Warren	38	25
Washington	530	13,152
Wayne	522	76,335
Webster	226	1,000
White	1,161	9,159
Whitfield	4,534	6,957
Wilcox	191	3,736
Wilkes	723	10,640
Wilkinson	5	240
Worth	420	3,407
Total	277,658	2,767,366
IDAHO.		
Ada	4,206	28,715
Bingham	12	.....
Boise	457	4,500
Bonner	294	1,600
Canyon	12,636	117,537
Cassia	111	.....
Elmore	887	11,670
Idaho	3,319	38,310
Kootenai	399	4,662
Latah	1,762	61,680
Lincoln	2,783	52,982
Nez Perce	36,969	237,601
Oneida	303	20
Owyhee	8	.....
Twin Falls	1,222	9,490
Washington	2,901	35,460
Total	68,269	604,227
ILLINOIS.		
Adams	35,736	367,842
Alexander	987	7,971
Bond	9,333	66,181
Boone	1,656	21,605
Brown	4,457	53,867
Bureau	30,514	282,367
Calhoun	5,542	38,428
Carroll	8,724	75,147
Cass	4,638	58,071
Champaign	29,610	343,085
Christian	13,668	151,230
Clark	12,564	115,355
Clay	8,280	72,064
Clinton	22,862	149,687
Coles	13,015	167,939
Cook	20,054	242,415
Crawford	6,022	146,865
Cumberland	7,775	115,597
DeKalb	8,521	105,760
Dewitt	5,455	127,208
Douglas	10,271	104,759
Dupage	8,745	68,467
Edgar	7,335	10,960
Edwards	7,067	62,890
Effingham	13,303	81,701
Fayette	16,553	155,976
Ford	9,125	100,429
Franklin	7,046	61,400
Fulton	13,722	182,907
Gallatin	6,843	61,590
Greene	6,466	69,773
Grundy	3,369	27,127
Hamilton	15,375	225,721
Hancock	531,318	1,906,366
Hardin	1,708	25,365
Henderson	3,785	34,626
Henry	14,072	165,209
Iroquois	23,167	253,147
Jackson	13,600	120,368
Jasper	26,116	241,749
Jefferson	13,432	136,316
Jersey	10,178	97,912
Jo Daviess	9,897	38,805
Johnson	17,721	132,491
Kane	9,173	179,770
Kankakee	10,533	111,883
Kendall	3,917	51,230
Knox	8,887	160,815
La Salle	53,457	320,688
Lake	12,736	130,645
Lawrence	3,120	50,215

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
ILLINOIS—continued.		*Pounds.*
Lee	16,836	209,972
Livingston	24,674	275,731
Logan	28,452	219,035
McDonough	9,029	124,232
McHenry	8,455	36,162
McLean	41,413	488,667
Macon	23,000	226,327
Macoupin	27,170	218,085
Madison	72,306	478,039
Marion	6,531	104,995
Marshall	8,059	77,310
Mason	6,134	57,699
Massac	7,594	57,349
Menard	5,500	62,603
Mercer	9,521	91,093
Monroe	46,694	329,265
Montgomery	25,442	240,256
Morgan	15,690	173,042
Moultrie	6,632	92,278
Ogle	9,384	96,979
Peoria	100,987	567,503
Perry	7,634	50,598
Piatt	9,088	116,562
Pike	12,080	131,375
Pope	9,025	67,548
Pulaski	39,886	211,598
Putnam	2,575	35,305
Randolph	16,444	117,358
Richland	8,083	44,404
Rock Island	32,532	262,587
St. Clair	71,838	419,246
Saline	4,380	70,009
Sangamon	31,310	241,227
Schuyler	4,513	102,124
Scott	3,416	49,427
Shelby	16,250	109,888
Stark	5,787	49,530
Stephenson	7,951	55,626
Tazewell	29,669	291,585
Union	10,002	87,234
Vermillion	12,952	210,508
Wabash	4,026	48,259
Warren	5,619	82,045
Washington	12,978	100,357
Wayne	14,929	212,297
White	9,381	118,565
Whiteside	10,885	113,179
Will	42,855	359,770
Williamson	11,343	125,789
Winnebago	9,279	58,972
Woodford	63,374	310,257
Total	2,170,340	16,582,785
INDIANA.		
Adams	21,334	202,362
Allen	42,798	516,864
Bartholomew	15,257	90,973
Benton	5,532	50,811
Blackford	4,420	30,763
Boone	5,356	227,128
Brown	2,500	28,795
Carroll	4,754	106,582
Cass	7,301	160,998
Clark	31,765	200,123
Clay	7,618	143,904
Clinton	6,178	189,067
Crawford	13,230	182,513
Daviess	8,312	119,909
Dearborn	31,307	225,593
Decatur	5,685	125,550
Dekalb	12,160	147,189
Delaware	7,294	82,911
Dubois	36,447	292,783
Elkhart	44,855	427,281
Fayette	2,369	46,305
Floyd	28,547	95,205
Fountain	2,255	51,292

County.	Number of vines.	Production.
INDIANA—continued.		*Pounds.*
Franklin	16,577	172,132
Fulton	5,324	130,107
Gibson	8,698	59,993
Grant	8,156	127,652
Greene	5,533	94,525
Hamilton	6,936	127,715
Hancock	3,349	73,819
Harrison	16,167	270,162
Hendricks	3,760	65,491
Henry	4,294	110,097
Howard	7,310	167,827
Huntington	13,111	199,445
Jackson	15,701	104,163
Jasper	9,910	114,035
Jay	11,011	176,472
Jefferson	7,419	112,832
Jennings	9,895	133,645
Johnson	4,257	98,921
Knox	4,068	63,322
Kosciusko	5,607	179,445
Lagrange	11,063	221,145
Lake	8,111	112,492
Laporte	12,105	119,352
Lawrence	3,395	42,347
Madison	5,428	102,138
Marion	21,207	169,030
Marshall	9,185	163,545
Martin	2,711	38,042
Miami	5,208	122,003
Monroe	3,588	51,031
Montgomery	3,678	122,747
Morgan	5,722	87,415
Newton	3,133	39,265
Noble	6,371	177,420
Ohio	1,115	36,845
Orange	3,323	84,731
Owen	5,311	42,831
Parke	2,870	61,876
Perry	30,904	211,132
Pike	7,342	97,300
Porter	15,493	183,502
Posey	30,704	127,008
Pulaski	6,191	88,516
Putnam	2,912	77,142
Randolph	6,814	152,684
Ripley	21,268	317,173
Rush	3,260	68,838
St. Joseph	43,834	450,821
Scott	10,693	174,842
Shelby	5,630	96,958
Spencer	35,800	293,578
Starke	6,583	57,342
Steuben	5,351	97,199
Sullivan	5,007	73,146
Switzerland	3,112	46,836
Tippecanoe	8,754	126,385
Tipton	9,351	202,582
Union	1,415	28,172
Vanderburg	61,861	347,840
Vermillion	3,337	58,883
Vigo	29,820	150,113
Wabash	7,712	246,446
Warren	2,163	39,413
Warrick	18,004	193,078
Washington	6,281	144,781
Wayne	6,781	88,751
Wells	13,215	223,860
White	5,917	96,273
Whitley	5,244	129,102
Total	1,049,232	12,817,353
IOWA.		
Adair	14,325	68,481
Adams	18,766	97,226
Allamakee	2,674	8,863
Appanoose	19,669	179,085
Audubon	15,038	65,632
Benton	15,097	92,792

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
IOWA—continued.		*Pounds.*
Blackhawk	6,636	34,119
Boone	19,572	118,057
Bremer	2,261	7,481
Buchanan	3,723	19,387
Buena Vista	3,646	6,994
Butler	2,068	12,457
Calhoun	8,653	29,511
Carroll	13,275	57,866
Cass	14,468	74,661
Cedar	10,269	85,246
Cerro Gordo	628	7,712
Cherokee	4,328	13,994
Chickasaw	583	1,810
Clarke	14,110	81,449
Clay	805	2,052
Clayton	13,414	50,902
Clinton	20,622	158,777
Crawford	16,839	73,344
Dallas	22,203	149,141
Davis	13,586	108,508
Decatur	21,570	288,843
Delaware	5,992	21,335
Des Moines	79,282	233,098
Dickinson	365	1,042
Dubuque	44,588	183,060
Emmet	879	1,758
Fayette	3,737	16,211
Floyd	1,195	3,668
Franklin	3,542	16,945
Fremont	15,388	129,019
Greene	12,937	76,085
Grundy	4,515	29,938
Guthrie	15,918	77,935
Hamilton	9,355	59,248
Hancock	650	2,043
Hardin	9,490	48,554
Harrison	21,491	184,388
Henry	17,519	153,593
Howard	497	668
Humboldt	4,252	25,247
Ida	7,139	43,756
Iowa	28,024	227,112
Jackson	13,306	76,274
Jasper	30,847	221,973
Jefferson	13,349	136,619
Johnson	38,401	193,020
Jones	7,449	36,847
Keokuk	28,467	220,806
Kossuth	3,884	7,920
Lee	68,088	288,292
Linn	58,702	374,874
Louisa	6,675	67,805
Lucas	11,471	144,016
Lyon	919	1,072
Madison	26,109	173,604
Mahaska	16,979	149,200
Marion	13,549	124,970
Marshall	35,314	176,609
Mills	15,860	117,997
Mitchell	396	1,305
Monona	11,203	74,395
Monroe	18,654	144,480
Montgomery	10,814	53,918
Muscatine	17,738	142,792
O'Brien	1,807	3,968
Osceola	656	2,080
Page	22,550	166,670
Palo Alto	1,578	2,771
Plymouth	10,707	41,592
Pocahontas	6,773	26,750
Polk	187,494	947,761
Pottawattamie	388,779	1,771,471
Poweshiek	14,702	123,089
Ringgold	14,322	150,064
Sac	7,405	42,339
Scott	54,320	403,053
Shelby	12,124	63,623
Sioux	2,795	14,570
Story	16,697	142,793
Tama	16,181	96,692
Taylor	16,826	103,034
Union	12,447	60,424
Van Buren	8,371	111,692
Wapello	53,797	404,085
Warren	34,703	219,071
Washington	33,741	196,643
Wayne	13,566	124,269
Webster	8,035	40,250
Winnebago	731	2,608
Winneshiek	1,680	8,850
Woodbury	14,823	76,320
Worth	340	970
Wright	3,839	13,926
Total	1,983,465	11,708,336
KANSAS.		
Allen	37,684	108,160
Anderson	37,995	85,369
Atchison	64,823	100,685
Barber	21,172	19,120
Barton	11,545	13,054
Bourbon	20,992	117,570
Brown	32,685	87,452
Butler	45,830	60,212
Chase	13,885	17,924
Chautauqua	21,777	30,105
Cherokee	14,977	55,807
Cheyenne	2,236	20
Clark	1,151	1,107
Clay	34,888	62,770
Cloud	14,454	59,237
Coffey	35,306	109,743
Comanche	2,157	1,045
Cowley	60,700	34,500
Crawford	35,777	135,988
Decatur	1,234	375
Dickinson	35,637	51,357
Doniphan	203,701	249,561
Douglas	45,425	94,170
Edwards	4,518	1,445
Elk	17,691	20,519
Ellis	1,677	1,985
Ellsworth	6,929	4,645
Finney	906	1,060
Ford	2,820	125
Franklin	43,284	191,950
Geary	22,550	29,575
Gove	3,211	3,045
Graham	2,231	2,946
Grant	71	250
Gray	262	500
Greeley	28	.....
Greenwood	34,382	32,532
Hamilton	873	700
Harper	34,339	21,779
Harvey	31,583	16,590
Haskell	50	.....
Hodgeman	1,143	.....
Jackson	52,408	132,436
Jefferson	41,174	61,549
Jewell	12,211	21,168
Johnson	108,446	206,359
Kearney	1,073	3,750
Kingman	36,881	79,530
Kiowa	3,659	1,945
Labette	32,371	44,245
Lane	414	100
Leavenworth	77,233	177,339
Lincoln	7,344	2,890
Linn	22,954	153,860
Logan	1,021	200
Lyon	79,472	88,692
McPherson	31,816	27,411
Marion	56,192	25,957
Marshall	44,236	113,775
Meade	873	918

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
KANSAS—continued.		*Pounds.*
Miami	48,079	246,520
Mitchell	7,992	9,753
Montgomery	38,360	63,210
Morris	24,010	41,596
Morton	26	35
Nemaha	59,950	204,251
Neosho	34,063	60,745
Ness	894	850
Norton	1,664	1,780
Osage	60,631	69,975
Osborne	9,621	42,305
Ottawa	11,571	10,530
Pawnee	4,830	1,768
Phillips	6,667	11,425
Pottawatomie	52,693	99,700
Pratt	15,206	11,111
Rawlins	1,542	2,875
Reno	80,036	164,359
Republic	21,805	78,590
Rice	36,953	35,340
Riley	26,476	54,641
Rooks	2,158	929
Rush	1,255	330
Russell	3,542	2,550
Saline	22,523	18,736
Scott	487	40
Sedgwick	99,040	155,250
Seward	24	.....
Shawnee	58,020	161,559
Sheridan	1,117	1,200
Sherman	1,162	.....
Smith	4,838	10,174
Stafford	27,796	43,300
Stanton	392	.....
Stevens	77	.....
Sumner	40,858	36,017
Thomas	412	275
Trego	953	800
Wabaunsee	45,661	52,593
Wallace	246	775
Washington	46,767	121,167
Wichita	96	.....
Wilson	20,782	34,498
Woodson	17,382	41,118
Wyandotte	330,811	1,451,853
Total	2,889,845	6,317,684
KENTUCKY.		
Adair	692	12,948
Allen	1,499	18,617
Anderson	674	8,551
Ballard	2,602	32,521
Barren	2,726	25,802
Bath	378	2,402
Bell	270	2,260
Boone	5,973	81,707
Bourbon	601	5,375
Boyd	976	14,563
Boyle	14,367	30,315
Bracken	6,876	30,415
Breathitt	58	46
Breckinridge	4,689	54,650
Bullitt	3,755	27,372
Butler	286	2,742
Caldwell	285	1,871
Calloway	3,019	34,740
Campbell	70,180	158,463
Carlisle	438	2,050
Carroll	1,124	2,505
Carter	16,789	45,916
Casey	1,383	8,041
Christian	2,242	11,773
Clark	2,436	30,808
Clay	287	756
Clinton	378	2,240
Crittenden	1,267	25,826
Cumberland	126	1,142

County.	Number of vines.	Production.
KENTUCKY—continued.		*Pounds.*
Daviess	10,406	101,474
Edmonson	975	11,983
Elliott	843	14,228
Estill	1,193	9,210
Fayette	2,517	23,293
Fleming	2,937	77,827
Floyd	5,055	8,466
Franklin	4,793	47,572
Fulton	409	6,080
Gallatin	154	1,850
Garrard	933	12,972
Grant	1,507	26,965
Graves	6,870	41,912
Grayson	2,435	42,061
Green	197	1,175
Greenup	2,565	25,208
Hancock	6,849	131,134
Hardin	10,716	158,384
Harlan	209	441
Harrison	2,385	34,301
Hart	1,764	15,340
Henderson	6,836	70,782
Henry	2,558	20,860
Hickman	791	6,160
Hopkins	2,206	30,544
Jackson	326	265
Jefferson	97,480	425,548
Jessamine	1,089	10,365
Johnson	820	5,034
Kenton	12,554	10,244
Knott	121	2,080
Knox	2,060	3,590
Larue	2,996	39,569
Laurel	7,006	17,901
Lawrence	1,090	27,975
Lee	123	.....
Leslie	27	662
Letcher	742	1,890
Lewis	3,965	72,140
Lincoln	6,721	17,463
Livingston	1,374	10,214
Logan	7,078	125,213
Lyon	1,451	9,716
McCracken	17,783	140,083
McLean	2,326	40,527
Madison	2,287	27,068
Magoffin	201	1,506
Marion	4,112	34,653
Marshall	3,303	16,383
Martin	1,311	3,963
Mason	1,047	5,770
Meade	5,918	56,070
Menifee	519	6,454
Mercer	4,961	35,790
Metcalfe	294	3,646
Monroe	601	3 710
Montgomery	2,428	22,479
Morgan	405	7,727
Muhlenberg	2,394	12,046
Nelson	11,612	50,146
Nicholas	886	32,888
Ohio	4,521	65,071
Oldham	101,886	323,995
Owen	860	14,122
Owsley	1	5
Pendleton	6,004	48,252
Perry	49	329
Pike	1,218	11,315
Powell	172	570
Pulaski	2,345	10,648
Robertson	167	1,105
Rockcastle	600	1,910
Rowan	1,090	14,831
Russell	473	6,705
Scott	1,170	15,102
Shelby	4,247	24,179
Simpson	2,558	27,715
Spencer	2,393	8,552
Taylor	1,060	6,427

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
KENTUCKY—continued.		*Pounds.*
Todd	1,136	7,483
Trigg	761	3,870
Trimble	123	277
Union	3,592	48,967
Warren	6,589	47,695
Washington	5,462	28,591
Wayne	746	11,560
Webster	985	20,918
Whitley	2,696	11,927
Wolfe	284	5,394
Woodford	2,888	35,290
Total	605,002	3,680,182
LOUISIANA.		
Acadia	20	.....
Ascension	24	.....
Avoyelles	15	1,280
Bienville	359	2,555
Bossier	1,906	6,440
Caddo	2,322	4,590
Calcasieu	3,153	11,057
Cameron	5	50
Catahoula	32	1,050
Claiborne	348	2,988
Concordia	6	200
De Soto	117	520
E. Carroll	6	.....
E. Feliciana	3	10
Franklin	3	10
Grant	1,513	4,927
Iberia	2	11
Jackson	631	1,704
LaSalle	23	179
Lafayette	9	226
Lafourche	40	226
Lincoln	1,781	2,479
Livingston	211	820
Natchitoches	198	1,475
Ouachita	524	757
Plaquemines	11	15
Rapides	719	1,900
Red River	71	395
Richland	28	62
Sabine	818	8,595
St. Charles	9	.....
St. Landry	33	108
St. Mary	11	107
St. Tammany	4,468	3,545
Tangipahoa	458	1,730
Tensas	8	170
Terrebonne	11	23
Union	321	2,200
Vermillion	37	70
Vernon	245	653
Webster	9,060	38,286
W. Carroll	68	390
Winn	1,414	5,002
Total	31,041	106,595
MAINE.		
Androscoggin	673	15,273
Aroostook	5	44
Cumberland	1,365	21,227
Franklin	1,221	29,101
Hancock	105	3,557
Kennebec	1,192	29,006
Knox	300	6,140
Lincoln	254	7,483
Oxford	1,344	30,730
Penobscot	436	9,859
Piscataquis	74	1,933
Sagadahoc	348	10,996
Somerset	306	5,695
Waldo	543	14,391
York	1,565	46,094
Total	9,731	231,529

County.	Number of vines.	Production.
MARYLAND.		*Pounds.*
Allegheny	4,615	55,722
Anne Arundel	6,336	21,365
Baltimore	13,656	280,393
Baltimore City	13	137
Calvert	3,216	24,097
Caroline	2,455	24,925
Carroll	7,267	224,347
Cecil	2,674	59,580
Charles	1,619	45,287
Dorchester	5,970	46,413
Frederick	12,275	368,436
Garrett	3,888	92,605
Harford	4,167	88,863
Howard	4,921	105,892
Kent	5,023	28,730
Montgomery	6,350	109,775
Prince George	25,653	224,209
Queen Annes	532	9,661
St. Marys	1,757	22,591
Somerset	2,320	25,694
Talbot	1,421	35,635
Washington	11,999	174,359
Wicomico	2,828	61,801
Worcester	7,846	21,865
Total	138,801	2,152,382
MASSACHUSETTS.		
Barnstable	692	11,887
Berkshire	1,084	23,511
Bristol	2,447	78,564
Dukes	100	1,543
Essex	3,327	98,945
Franklin	3,128	89,699
Hampden	2,593	55,513
Hampshire	4,039	83,956
Middlesex	10,887	188,742
Norfolk	4,296	94,657
Plymouth	11,809	121,248
Suffolk	25	1,628
Worcester	12,950	279,945
Total	58,277	1,132,838
MICHIGAN.		
Alcona	121	1,458
Allegan	172,361	1,360,292
Alpena	132	1,251
Antrim	4,133	32,945
Arenac	2,307	32,037
Baraga	1	100
Barry	7,657	124,800
Bay	56,230	698,830
Benzie	3,882	44,470
Berrien	3,092,008	53,022,711
Branch	6,943	141,810
Calhoun	15,835	203,705
Cass	411,769	3,221,877
Charlevoix	1,243	16,348
Cheboygan	383	8,480
Clare	1,128	8,162
Clinton	6,261	91,589
Crawford	42	510
Delta	1	100
Eaton	6,315	96,042
Emmet	520	8,490
Genesee	42,129	248,853
Gladwin	623	10,465
Grand Traverse	17,167	170,387
Gratiot	10,505	120,076
Hillsdale	8,307	125,678
Houghton	3	.....
Huron	71,997	692,116
Ingham	4,640	53,089
Ionia	9,454	151,873
Iosco	206	3,529
Isabella	5,598	82,172
Jackson	12,245	148,538
Kalamazoo	694,462	3,893,239

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
MICHIGAN—continued.		*Pounds.*
Kalkaska	523	8,990
Kent	253,198	2,621,927
Lake	1,896	23,279
Lapeer	8,568	165,145
Leelanau	19,341	119,728
Lenawee	24,954	269,037
Livingston	15,325	96,875
Macomb	27,447	310,000
Manistee	3,425	39,973
Marquette	2	.....
Mason	17,792	117,316
Mecosta	3,697	65,021
Menominee	111	501
Midland	1,979	26,514
Missaukee	556	6,121
Monroe	176,629	1,292,906
Montcalm	8,827	173,856
Montmorency	76	1,035
Muskegon	33,849	226,373
Newaygo	12,624	90,271
Oakland	29,910	291,171
Oceana	9,272	101,108
Ogemaw	2,065	10,101
Oscola	2,035	24,842
Oscoda	178	1,140
Otsego	1	12
Ottawa	337,033	2,555,822
Presque Isle	48	960
Roscommon	134	1,455
Saginaw	54,356	610,738
St. Clair	10,888	181,860
St. Joseph	55,755	319,106
Sanilac	6,109	97,420
Shiawassee	10,385	144,860
Tuscola	26,702	270,884
Van Buren	6,000,348	44,406,720
Washtenaw	25,501	402,294
Wayne	53,900	731,536
Wexford	665	12,085
Total	11,913,576	120,695,997
MINNESOTA.		
Aitkin	77	580
Anoka	690	105
Becker	8	82
Beltrami	20	20
Benton	42	250
Bigstone	39	10
Blue Earth	2,006	77,796
Brown	1,160	3,070
Carvert	11,208	25,137
Cass	24	100
Chippewa	136	742
Chisago	435	1,400
Clay	11	8
Clearwater	6	26
Cottonwood	159	355
Crow Wing	131	1,000
Dakota	464	1,220
Dodge	70	1,100
Douglas	185	800
Fairbault	451	1,223
Fillmore	270	817
Freeborn	469	1,376
Goodhue	2,107	4,978
Grant	36	20
Hennepin	11,442	62,310
Houstan	7,507	18,619
Hubbard	36	140
Isanti	107	385
Jackson	377	929
Kanabec	35	50
Kandiyohi	160	809
Lacqui Parle	240	2,260
Le Sueur	650	2,207
Lincoln	78	43
Lyon	141	372
McLeod	1,233	7,342
Marshall	8	.....
Martin	2,655	6,668
Meeker	650	2,159
Mille Lacs	22	45
Morrison	27	32
Mower	33	77
Murray	71	490
Nicollet	3,208	5,520
Nobles	395	601
Norman	12	25
Olmsted	256	545
Otter Tail	97	866
Pennington	5	100
Pine	63	270
Pipestone	59	.....
Polk	21	145
Popo	175	242
Ramsey	821	5,580
Redwood	594	1,393
Renville	1,228	5,144
Rice	890	7,851
Rock	84	435
Scott	841	5,177
Sherburne	343	260
Sibley	557	3,504
Stearns	947	4,440
Steele	602	5,251
Stevens	11	20
Swift	2	20
Todd	53	1,122
Traverse	13	165
Wabasha	303	1,455
Waseca	255	745
Washington	128	1,708
Watonvan	377	1,580
Wilkin	15	150
Winona	841	6,315
Wright	1,837	5,801
Yellow Medicine	201	183
Total	61,916	293,805
MISSISSIPPI.		
Admas	22	20
Alcorn	4,322	12,248
Amite	45	319
Attala	1,369	17,815
Benton	795	6,188
Bolivar	322	3,900
Calhoun	496	3,774
Carroll	260	1,601
Chickasaw	984	6,135
Choctaw	1,293	8,399
Claiborne	15	15
Clarke	571	14,398
Clay	1,827	9,315
Coahoma	206	2,072
Copiah	537	4,455
Covington	254	2,548
De Soto	4,498	7,819
Forrest	289	730
Franklin	233	1,734
George	338	4,984
Greene	30	720
Grenada	141	685
Hancock	794	102,685
Harrison	1,901	10,042
Hinds	392	2,193
Holmes	209	842
Issaquena	17	146
Itawamba	2,401	28,287
Jackson	2,400	23,062
Jasper	437	3,943
Jefferson	69	11
Jefferson Davis	17	160
Jones	1,334	55,145

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
MISSISSIPPI—continued.		*Pounds.*
Kemper	579	5,008
Lafayette	1,616	27,322
Lamar	163	6,260
Lauderdale	1,409	18,731
Lawrence	45	410
Leake	210	1,320
Lee	2,032	33,071
Newton	787	6,079
Lellore	91	1,370
Lincoln	339	1,313
Lowndes	920	4,689
Madison	533	3,705
Marion	167	742
Marshall	1,675	10,841
Monroe	3,454	17,911
Montgomery	1,416	8,098
Neshoba	750	2,910
Noxubee	488	3,962
Oktibbeha	3,830	41,630
Panola	581	4,5 3
Pearl River	1,665	23,601
Perry	131	1,077
Pike	71	570
Pontotoc	2,459	26,910
Prentiss	1,091	26,395
Quitman	41	830
Rankin	308	746
Scott	164	2,905
Sharkey	37	352
Simpson	706	8,266
Smith	461	11,6'8
Sunflower	106	336
Tallahatchie	106	1,365
Tate	467	9,301
Tippah	1,593	4,397
Tishomingo	3,168	26,236
Tunica	134	1,075
Union	1,900	12,143
Warren	59	109
Washington	86	210
Wayne	125	2,501
Webster	2,535	16,490
Wilkinson	52	31
Winston	1,293	39,114
Yalobusha	5,269	6,101
Yazoo	96	1,000
Total	770,127	760,563
MISSOURI.		
Adair	16,985	86,242
Andrew	107,585	634,965
Atchison	18,878	122,555
Audrain	14,855	187,211
Barry	13,506	88,774
Barton	29,826	166,561
Bates	34,186	213,181
Benton	18,467	121,687
Bollinger	4,465	51,165
Boone	11,562	117,317
Buchanan	195,171	430,386
Butler	9,012	40,088
Caldwell	14,792	100,322
Callaway	13,404	116,513
Camden	5,614	37,885
Cape Girardeau	8,407	139,527
Carroll	21,921	148,128
Carter	1,242	5,275
Cass	33,562	294,110
Cedar	17,240	195,386
Charlton	23,769	193,842
Christian	13,272	78,202
Clark	15,465	103,079
Clay	29,377	138,221
Clinton	6,073	37,624
Cole	12,003	70,756
Cooper	25,958	169,039
Crawford	10,423	55,707
Dade	13,300	115,094
Dallas	4,976	36,015
Daviess	11,784	94,849
Dekalb	17,281	120,312
Dent	6,366	36,041
Douglas	23,411	53,085
Dunklin	1,577	35,611
Franklin	61,891	340,451
Gasconade	219,151	780,216
Gentry	20,984	168,348
Greene	32,332	190,068
Grundy	9,210	103,093
Harrison	19,269	241,992
Henry	27,576	238,805
Hickory	5,914	35,989
Holt	27,004	127,528
Howard	8,796	111,979
McDonald	3,256	14,967
Macon	19,537	164,103
Madison	5,523	44,720
Maries	2,977	35,201
Marion	29,706	242,837
Mercer	11,698	138,368
Miller	7,445	45,593
Mississippi	1,248	17,872
Moniteau	15,508	116,124
Monroe	8,172	113,006
Montgomery	20,650	143,467
Morgan	8,321	67,739
New Madrid	554	15,534
Newton	29,980	186,925
Nodaway	34,183	243,185
Oregon	16,268	24,931
Osage	40,738	196,029
Ozark	9,034	17,867
Pemiscot	4,745	12,294
Perry	12,541	137,274
Pettis	28,276	255,968
Phelps	21,023	92,966
Pike	8,191	85,448
Platte	33,829	82,978
Polk	11,666	90,310
Pulaski	5,389	27,031
Putnam	14,225	162,781
Ralls	7,977	75,994
Randolph	12,796	183,284
Ray	13,406	76,264
Reynolds	1,081	12,417
Ripley	6,376	17,591
St. Charles	51,339	316,216
St. Clair	14,680	175,876
St. Francois	18,794	123,810
St. Louis	471,493	2,897,291
St. Louis City	22,141	141,150
St. Genevieve	43,257	218,187
Saline	20,856	204,566
Schuyler	9,553	97,019
Scotland	11,182	132,909
Scott	3,372	59,241
Shannon	13,180	24,884
Shelby	5,662	94,480
Stoddard	2,548	34,416
Howell	42,564	308,266
Iron	6,765	33,189
Jackson	86,246	203,306
Jasper	20,192	115,765
Jefferson	119,765	428,582
Johnson	25,623	277,298
Knox	13,194	103,810
Laclede	20,557	68,352
Lafayette	25,796	147,918
Lawrence	30,792	107,204
Lewis	12,312	175,265
Lincoln	8,993	82,190
Linn	14,900	127,973
Livingston	15,334	99,328

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
MISSOURI—continued.		*Pounds.*
Stone	4,737	20,640
Sullivan	14,733	123,136
Taney	23,115	25,589
Texas	15,048	101,710
Vernon	37,508	204,778
Warren	11,454	98,051
Washington	12,807	60,552
Wayne	4,957	21,501
Webster	9,670	46,035
Worth	7,767	92,024
Wright	9,493	49,126
Total	3,026,526	17,871,816
MONTANA.		
Beaverhead	12	70
Flathead	300	.....
Lincoln	102	100
Park	6	.....
Rosebud	3	50
Sanders	21	50
Yellowstone	542	100
Total	986	370
NEBRASKA.		
Adams	9,093	21,078
Antelope	8,272	43,155
Banner	5	.....
Blaine	34	600
Boone	3,671	9,000
Box Butte	6	.....
Boyd	6,277	10,882
Brown	26	200
Buffalo	6,087	14,732
Burt	14,811	111,134
Butler	14,134	61,091
Cass	38,680	164,448
Cedar	14,256	35,563
Chase	514	660
Cherry	45	.....
Cheyenne	54	.....
Clay	6,578	24,789
Colfax	18,702	73,711
Cuming	13,992	65,752
Custer	6,783	8,925
Dakota	3,567	18,735
Dawson	928	2,186
Deuel	66	.....
Dixon	9,995	87,365
Dodge	6,393	70,952
Douglas	394,633	1,143,546
Dundy	132	45
Fillmore	12,917	72,961
Franklin	6,355	12,793
Frontier	626	615
Furnas	1,181	890
Gage	36,456	163,554
Garden	85	50
Garfield	594	165
Gosper	637	225
Grant	12	5
Greeley	1,967	8,351
Hall	7,643	44,773
Hamilton	16,721	76,140
Harlan	2,589	5,230
Hayes	216	170
Hitchcock	263	100
Holt	4,691	13,591
Howard	6,532	26,486
Jefferson	18,761	87,405
Johnson	23,983	78,425
Kearney	4,484	5,647
Keith	87	200
Keyapaha	345	280
Knox	5,217	13,577
Lancaster	47,290	268,023
Lincoln	3,827	4,270
Logan	3	100
Loup	455	331
Madison	6,578	33,091
Merrick	8,060	41,490
Morrill	12	.....
Nance	2,985	17,775
Nemaha	52,910	169,820
Nuckolls	9,646	19,322
Otoe	55,550	227,294
Pawnee	29,477	103,225
Perkins	11	40
Phelps	1,715	6,408
Pierce	5,159	26,090
Platte	7,344	37,208
Polk	6,233	32,283
Redwillow	2,302	1,961
Richardson	34,883	117,140
Rock	64	50
Saline	20,455	89,345
Sarpy	28,688	113,990
Saunders	30,417	129,189
Scotts Bluff	40	.....
Seward	20,953	90,377
Sheridan	210	100
Sherman	2,848	7,238
Sioux	78	18
Stanton	6,010	41,595
Thayer	15,794	57,314
Thurston	1,107	4,189
Valley	876	1,035
Washington	53,626	344,388
Wayne	6,474	14,574
Webster	11,035	29,913
Wheeler	1,911	12,235
York	13,602	79,767
Total	1,221,736	4,752,217
NEVADA.		
Churchill	31	.....
Clark	21,402	318,000
Humboldt	50	.....
Lander	2	30
Lincoln	2,908	45,400
Lyon	253	.....
Nye	1,905	12,075
Storey	17	100
Washoe	12	100
White Pine	27	500
Total	26,607	376,205
NEW HAMPSHIRE.		
Belknap	1,253	33,581
Carroll	104	15,608
Cheshire	1,518	25,184
Coos	1	40
Grafton	759	21,205
Hillsborough	4,577	101,130
Merrimack	2,649	73,699
Rockingham	2,711	67,102
Strafford	1,218	22,280
Sullivan	682	15,332
Total	15,802	375,164
NEW JERSEY.		
Atlantic	818,166	2,395,087
Bergen	14,984	173,702
Burlington	15,107	100,134
Camden	104,300	366,782
Cape May	31,601	144,005
Cumberland	361,791	1,212,791

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
NEW JERSEY—continued.		*Pounds.*
Essex	1,784	22,440
Gloucester	78,144	426,618
Hudson	1	
Huntesdun	1,448	36,395
Mercer	8,102	153,717
Middlesex	6,233	59,747
Monmouth	47,240	563,291
Morris	5,327	117,518
Ocean	673	10,165
Passaic	3,852	38,955
Salem	64,944	311,860
Somerset	28,168	345,881
Sussex	6,768	47,182
Union	3,306	45,775
Warren	1,341	23,576
Total	1,003,280	6,501,221
NEW MEXICO.		
Bernalillo	23,052	26,600
Chaves	5,942	16,662
Colfax	1	2
Curry	327	20
Dona Ana	25,238	63,480
Eddy	6,891	43,050
Grant	1,324	10,697
Guadaloupe	916	305
Lincoln	204	206
Luna	481	3,540
McKinley	400	
Mora	24	2
Otero	22,990	31,355
Quay	343	1,225
Rio Arriba	1,172	900
Roosevelt	4,719	1,813
San Juan	13,371	60,980
San Miguel	281	540
Sandoval	97,252	126,140
Santa Fe	613	1,040
Sierra	17,485	23,555
Socarro	8,166	4,350
Torrance	24	600
Union	120	652
Valencia	18,740	4,701
Total	250,076	425,415
NEW YORK.		
Albany	8,782	85,381
Allegany	857	17,822
Broome	4,022	94,653
Cattaraugus	180,292	1,525,123
Cayuga	56,113	661,826
Chautauqua	15,782,646	132,029,919
Chemung	3,579	50,273
Chenango	2,041	52,073
Clinton	770	12,923
Columbia	364,074	3,482,613
Cortland	1,020	20,316
Delaware	1,295	30,666
Dutchess	72,594	585,350
Erie	1,141,278	10,638,840
Essex	14,116	57,579
Franklin	314	5,761
Fulton	684	14,001
Genesee	8,060	165,429
Greene	13,139	116,328
Hamilton	1	25
Herkimer	971	30,943
Jefferson	2,337	22,519
Kings	99	800
Lewis	174	1,197
Livingston	95,909	721,430
Madison	13,700	202,800
Monroe	188,477	2,318,752
Montgomery	8,612	81,787
Nassau	1,139	18,275
New York	23	320
Niagara	358,312	4,065,201
Oneida	6,049	114,405
Onondaga	47,149	630,767
Ontario	1,831,644	11,155,951
Orange	200,733	1,698,745
Orleans	38,321	565,904
Oswego	8,891	160,299
Otsego	1,265	37,272
Putnam	2,134	12,060
Queens	854	8,754
Rensselaer	10,468	137,315
Richmond	730	5,080
Rockland	5,513	67,015
St. Lawrence	833	15,564
Saratoga	4,907	69,681
Schenectady	2,398	29,885
Schoharie	2,869	58,282
Schuyler	923,263	5,253,621
Seneca	561,869	6,157,171
Steuben	2,568,026	17,509,702
Suffolk	5,265	72,849
Sullivan	3,593	61,549
Tioga	2,607	56,413
Tompkins	71,922	550,090
Ulster	1,969,301	13,358,000
Warren	1,105	23,117
Washington	2,618	63,126
Wayne	65,076	1,083,859
Westchester	5,511	120,526
Wyoming	6,525	57,197
Yates	5,123,572	36,941,168
Total	31,802,097	253,006,361
NORTH CAROLINA.		
Alamance	11,806	57,382
Alexander	1,784	48,582
Alleghany	106	5,075
Anson	5,773	198,842
Ashe	1,731	44,247
Beaufort	2,955	450,807
Bertie	1,151	141,250
Bladen	3,082	623,109
Brunswick	1,313	340,577
Buncombe	20,608	89,209
Burke	32,923	101,101
Cabarrus	6,225	63,430
Caldwell	5,231	64,673
Camden	197	6,139
Carteret	5,853	91,375
Caswell	1,817	24,256
Catawba	7,970	95,319
Chatham	3,547	206,364
Cherokee	1,955	13,522
Chowan	606	107,345
Clay	798	9,590
Cleveland	4,566	73,642
Columbus	6,883	1,029,615
Craven	1,166	180,043
Cumberland	5,853	566,907
Currituck	4	400
Davidson	6,759	155,407
Davie	1,861	12,107
Duplin	3,696	786,317
Durham	2,410	83,499
Edgecombe	1,657	248,653
Forsyth	9,722	46,033
Franklin	1,689	33,802
Gaston	19,592	89,536
Gates	721	164,535
Graham	40	275
Granville	2,018	84,419
Greene	499	123,747
Guilford	8,380	79,998
Halifax	5,300	478,001

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
NORTH CAROLINA—con.		*Pounds.*
Harnett	2,934	261,455
Haywood	1,970	45,101
Henderson	2,816	17,487
Hertford	1,193	72,906
Hyde	265	20,091
Jones	420	122,025
Lee	3,425	309,905
Lenoir	3,012	372,320
Lincoln	3,779	47,121
McDowell	3,249	32,322
Macon	1,010	28,990
Madison	1,496	26,258
Martin	2,126	409,276
Mecklenburg	9,189	78,621
Mitchell	1,401	24,071
Montgomery	4,297	199,274
Moore	30,394	412,937
Nash	3,088	331,013
New Hanover	351	35,005
Northampton	2,025	135,896
Onslow	1,258	341,410
Orange	2,881	27,919
Pamlico	548	35,309
Pasquotank	100	12,419
Pender	2,023	255,430
Perquimans	861	71,476
Person	1,604	13,576
Pitt	2,073	463,494
Polk	35,830	210,395
Randolph	5,391	111,781
Richmond	2,886	138,244
Robeson	7,128	723,690
Rockingham	2,481	11,625
Rowan	7,333	107,003
Rutherford	3,318	36,875
Sampson	4,861	587,880
Stanly	1,576	35,132
Stokes	1,890	40,598
Surry	534	9,505
Swain	934	11,305
Transylvania	1,405	14,613
Tyrrell	28	1,250
Union	2,952	31,789
Vance	1,608	53,979
Wake	4,597	375,414
Warren	7,708	106,598
Washington	700	151,399
Watauga	2,051	45,225
Wayne	3,579	346,588
Wilkes	1,727	32,741
Iredell	9,763	38,638
Jackson	1,552	18,237
Johnston	4,445	444,967
Wilson	930	108,142
Yadkin	5,945	24,857
Yancey	911	20,125
Total	411,278	15,116,920
NORTH DAKOTA.		
Barnes	9	50
Cass	61	.....
Dunn	5	100
Foster	4	.....
Grand Fork	4	50
Morton	12	.....
Oliver	3	.....
Pembina	4	.....
Pierce	8	.....
Richland	40	135
Stark	201	25
Walsh	28	.....
Total	379	360

County.	Number of vines.	Production.
OHIO.		*Pounds.*
Adams	4,999	124,294
Allen	23,368	248,586
Ashland	5,676	72,273
Ashtabula	153,190	1,485,110
Athens	3,649	52,777
Auglaize	12,131	189,401
Belmont	69,808	428,388
Brown	17,286	225,672
Butler	12,042	54,786
Carroll	3,239	109,490
Champaign	4,440	59,885
Clark	4,819	41,681
Clermont	69,000	219,789
Clinton	4,317	91,493
Columbiana	14,975	234,359
Coshocton	5,515	116,348
Crawford	20,413	287,210
Cuyahoga	3,037,094	12,007,873
Darke	9,909	193,624
Defiance	13,548	163,786
Delaware	5,319	67,304
Erie	1,160,917	4,323,035
Fairfield	40,176	247,817
Fayette	3,076	43,605
Franklin	10,798	135,414
Fulton	14,068	156,268
Gallia	3,582	35,780
Geauga	15,133	137,660
Greene	3,909	59,542
Guernsey	4,965	71,898
Hamilton	134,058	424,270
Hancock	14,077	185,315
Hardin	9,581	104,352
Harrison	4,133	89,469
Henry	15,049	146,908
Highland	5,650	117,093
Hocking	4,393	105,615
Holmes	8,471	208,837
Huron	12,753	118,017
Jackson	3,970	85,574
Jefferson	5,418	104,921
Knox	5,750	65,576
Lake	509,445	3,344,587
Lawrence	3,134	27,072
Licking	7,788	70,811
Logan	6,956	117,434
Lorain	617,137	3,967,420
Lucas	254,337	951,215
Madison	3,486	29,590
Mahoning	5,112	181,456
Marion	6,420	102,165
Medina	19,009	174,395
Meigs	7,310	110,361
Mercer	33,377	270,241
Miami	7,688	135,190
Monroe	13,913	167,131
Montgomery	22,567	182,109
Morgan	3,715	104,070
Morrow	4,307	89,503
Muskingum	12,915	103,636
Noble	4,872	66,270
Ottawa	1,473,827	5,934,959
Paulding	12,932	151,303
Perry	5,291	90,118
Pickaway	2,925	53,246
Pike	4,903	136,037
Portage	6,692	104,020
Preble	3,799	101,647
Putnam	22,177	246,647
Richland	13,813	166,659
Ross	11,612	81,668
Sandusky	24,835	156,038
Scioto	9,366	99,917
Seneca	27,813	255,478
Shelby	5,865	68,895
Stark	15,279	365,679

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
OHIO—continued.		*Pounds.*
Summit	15,291	176,035
Trumbill	10,095	217,782
Tuscarawas	22,775	442,018
Union	6,466	64,257
Van Wert	12,168	139,127
Vinton	2,604	30,135
Warren	3,528	53,615
Washington	5,215	66,782
Wayne	13,764	312,072
Williams	12,181	189,106
Wood	53,469	321,151
Wyandot	11,825	112,914
Total	8,326,800	43,033,207
OKLAHOMA.		
Adair	213	390
Alfalfa	88,238	70,360
Atoka	1,743	4,820
Beaver	3,560	1,290
Beckham	38,150	27,135
Blaine	67,167	43,658
Bryan	2,543	2,905
Caddo	137,784	233,847
Canadian	85,264	132,957
Carter	15,141	50,442
Cherokee	834	600
Choctaw	325	569
Cimarron	204	790
Cleveland	62,194	177,903
Coal	1,482	320
Comanche	65,785	125,869
Craig	6,752	15,019
Creek	1,808	8,640
Custer	59,326	36,744
Delaware	1,128	1,686
Dewey	58,720	23,303
Ellis	19,191	1,960
Garfield	133,600	89,830
Garvin	4,987	13,805
Grady	29,861	120,277
Grant	111,546	49,846
Greer	17,791	25,483
Harmon	5,999	2,340
Harper	8,410	2,551
Haskell	1,131	2,310
Hughes	1,563	6,880
Jackson	9,879	6,860
Jefferson	5,795	30,352
Johnston	5,815	35,206
Kay	84,189	37,240
Kingfisher	67,882	132,618
Kiowa	45,699	16,325
Latimer	610	1,100
Le Flore	6,459	2,400
Lincoln	125,590	321,909
Logan	99,861	248,725
Love	1,228	9,580
McClain	3,501	1,060
McCurtain	193	1,731
McIntosh	2,664	9,020
Major	133,986	123,940
Marshall	733	2,860
Mayes	2,231	100
Murray	2,922	2,657
Muskogee	7,523	33,515
Noble	50,357	187,060
Nowata	3,129	5,655
Okfuskee	2,011	6,900
Oklahoma	103,161	195,388
Okmulgee	3,802	4,300
Osage	6,744	13,515
Ottawa	5,296	20,474
Pawnee	57,514	214,638
Payne	70,159	276,360
Pittsburg	7,457	20,750
Pontotoc	4,480	9,970
Pottawatomie	155,829	284,264
Pushmataha	210	1,200
Roger Mills	20,298	8,587
Rogers	9,931	8,550
Seminole	325	2,412
Sequoyah	811	1,285
Stephens	20,195	75,499
Texas	749	.....
Tillman	10,568	30,702
Tulsa	4,494	7,430
Wagoner	9,148	12,740
Washington	2,267	1,665
Washita	97,622	30,994
Woods	44,669	6,949
Woodward	57,807	28,063
Total	2,388,213	3,762,727
OREGON.		
Baker	4,847	11,660
Benton	4,365	52,819
Clackamas	46,094	535,267
Columbia	267	5,078
Coos	553	6,360
Crook	183	475
Curry	99	8,117
Douglas	22,662	214,501
Gilliam	130	345
Grant	198	1,102
Harney	18	.....
Hood River	799	1,270
Jackson	61,326	443,981
Josephine	41,869	184,752
Klamath	12	.....
Lake	6	.....
Lane	6,425	100,606
Lincoln	117	740
Linn	4,491	91,837
Malheur	644	4,225
Marion	19,177	101,725
Morrow	1,696	5,055
Multnomah	7,731	69,435
Polk	12,303	65,906
Sherman	7,020	13,150
Umatilla	21,611	273,032
Union	49	265
Wallowa	798	5,170
Wasco	48,469	485,007
Washington	57,695	414,706
Wheeler	231	2,125
Yamhill	6,421	105,043
Total	331,302	3,206,874
PENNSYLVANIA.		
Adams	6,830	201,690
Allegheny	260,369	1,794,505
Armstrong	15,058	441,638
Beaver	38,993	326,371
Bedford	11,286	322,948
Berks	50,432	694,339
Blair	31,667	287,366
Bradford	9,206	101,713
Bucks	18,910	339,770
Butler	12,505	383,597
Cambria	9,910	111,531
Cameron	1,922	9,951
Carbon	2,340	43,286
Center	4,339	112,290
Chester	12,091	33,407
Clarion	6,355	178,825
Clearfield	8,647	228,960
Clinton	4,842	85,863
Columbia	6,392	125,026
Crawford	15,809	247,461
Cumberland	8,830	147,023

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
PENNSYLVANIA—contd.		*Pounds.*
Dauphin	17,555	263,772
Delaware	3,321	53,831
Elk	1,242	38,003
Erie	4,236,332	18,927,730
Fayette	32,931	422,720
Forest	506	5,175
Franklin	15,041	321,957
Fulton	2,492	72,408
Greene	8,442	187,663
Huntington	7,654	162,350
Indiana	12,276	44,894
Jefferson	6,927	250,014
Juniata	4,491	73,032
Lackawanna	3,628	71,582
Lancaster	39,899	1,174,503
Lawrence	5,629	179,465
Lebanon	7,930	135,979
Lehigh	5,811	139,797
Luzerne	4,922	169,766
Lycoming	19,155	182,958
McKean	101	1,799
Mercer	9,976	315,202
Mifflin	4,358	78,567
Monroe	4,248	30,468
Montgomery	18,470	242,302
Montour	1,448	25,024
Northampton	5,013	139,259
Northumberland	11,741	221,915
Perry	3,884	104,043
Philadelphia	1,303	13,335
Pike	1,689	23,284
Potter	184	2,628
Schuylkill	16,891	266,570
Snyder	2,651	68,839
Somerset	8,289	215,413
Sullivan	1,204	21,523
Susquehanna	4,513	112,088
Tioga	2,634	56,351
Union	2,419	6,894
Venango	5,603	122,747
Warren	3,403	76,732
Washington	65,275	524,015
Wayne	2,984	77,219
Westmoreland	73,760	705,681
Wyoming	3,151	93,452
York	43,155	728,692
Total	5,271,264	34,020,198
RHODE ISLAND.		
Bristol	207	8,625
Kent	715	19,684
Newport	1,346	11,253
Providence	4,539	105,620
Washington	855	7,755
Total	7,662	152,937
SOUTH CAROLINA.		
Abbeville	3,990	48,730
Aiken	1,695	17,817
Anderson	5,904	11,385
Bamberg	96	8,920
Beaufort	153	12,954
Barnwell	146	7,705
Berkeley	120	2,590
Calhoun	82	386
Charleston	141	13,263
Cherokee	1,024	11,240
Chester	2,101	86,930
Chesterfield	2,039	157,223
Clarendon	632	81,574
Colleton	633	50,195
Darlington	1,646	126,257
Dillon	215	21,694
Dorchester	127	9,090
Edgefield	911	7,927

County.	Number of vines.	Production.
SOUTH CAROLINA—contd.		*Pounds.*
Fairfield	126	4,096
Florence	1,221	105,689
Georgetown	306	16,510
Greenville	8,908	64,753
Greenwood	5,698	29,682
Hampton	102	15,975
Horry	2,465	216,495
Kershaw	374	7,725
Lancaster	1,974	18,809
Laurens	4,819	47,218
Lee	934	48,310
Lexington	1,712	9,640
Marion	303	11,395
Marlboro	1,600	95,355
Newbury	1,304	17,415
Oconee	8,084	24,454
Orangeburg	1,079	84,730
Pickens	1,458	12,507
Richland	1,408	33,753
Saluda	831	10,150
Spartanburg	6,850	36,247
Sumpter	2,010	100,450
Union	328	17,025
Williamsburg	1,281	217,865
York	2,512	30,508
Total	79,708	2,016,596
SOUTH DAKOTA.		
Armstrong	12	.....
Aurora	143	210
Beadle	761	72
Bonhomme	3,372	10,659
Brookings	17	.....
Brown	6	.....
Brule	1,829	2,320
Campbell	56	30
Charles Mix	1,207	1,162
Clark	22	.....
Clay	3,138	26,745
Codington	3	.....
Custer	93	5
Davison	1,060	4,550
Deuel	62	50
Douglas	93	13
Edmunds	1	4
Fall River	1,135	105
Grant	12	.....
Gregory	6,687	37,040
Hand	160	509
Hanson	564	6,553
Hughes	201	.....
Hutchinson	4,657	19,939
Hyde	100	175
Jerauld	155	235
Kingsbury	36	150
Lake	128	1,240
Lincoln	1,542	3,524
Lyman	1	.....
McCook	526	369
Meade	12	25
Miner	125	95
Minnehaha	323	575
Moody	47	29
Perkins	40	900
Potter	215	1,050
Roberts	6	.....
Sanborn	199	517
Spink	207	109
Stanley	4	.....
Tripp	150	.....
Turner	1,466	5,874
Union	4,675	16,268
Walworth	20	450
Yankton	3,379	12,110
Total	38,647	144,634

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
TENNESSEE.		*Pounds.*
Anderson	2,146	12,613
Bedford	4,105	19,754
Benton	1,274	894
Bledsoe	1,081	23,492
Blount	8,016	69,028
Bradley	1,854	6,177
Campbell	2,045	9,012
Cannon	307	1,378
Carroll	2,741	16,684
Carter	3,047	60,774
Cheatham	171	940
Chester	968	1,986
Claiborne	609	6,177
Clay	67	242
Cocke	2,853	38,361
Coffee	1,292	9,258
Crockett	522	16,168
Cumberland	2,246	28,872
Davidson	16,624	28,776
Decatur	994	705
Dekalb	989	5,280
Dickson	6,407	7,414
Dyer	1,586	19,885
Fayette	407	5,872
Fentress	2,668	10,664
Franklin	7,968	28,393
Gibson	3,386	30,906
Giles	2,268	6,433
Grainger	1,928	13,053
Greene	3,064	35,260
Grundy	10,766	37,332
Hamblen	7,258	33,741
Hamilton	14,248	82,315
Hancock	328	1,078
Hardeman	1,705	4,752
Hardin	1,437	6,923
Hawkins	1,240	11,755
Haywood	704	7,475
Henderson	1,000	2,665
Henry	3,659	17,635
Hickman	911	1,090
Houston	142	1,135
Humphreys	1,856	1,981
Jackson	191	1,567
James	2,693	6,625
Jefferson	3,846	49,902
Johnson	950	31,616
Knox	55,830	218,225
Lake	53	700
Lauderdale	405	6,682
Lawrence	3,378	915
Lewis	5,843	.....
Lincoln	4,331	19,710
Loudon	2,320	11,608
McMinn	4,682	31,248
McNairy	1,834	5,655
Macon	1,888	8,412
Madison	2,081	15,446
Marion	1,288	10,960
Marshall	1,950	10,820
Maury	5,368	18,209
Meigs	1,342	11,031
Monroe	4,871	47,172
Montgomery	3,601	36,661
Moore	23	150
Morgan	9,425	93,397
Obion	1,191	19,773
Overton	1,681	13,348
Perry	326	50
Pickett	12	85
Polk	748	5,219
Putnam	2,474	11,887
Rhea	2,493	5,786
Roane	4,861	9,899
Robertson	6,448	35,125
Rutherford	3,950	23,599
Scott	860	14,795
Sequatchie	2,146	3,345
Sevier	2,504	41,752
Shelby	5,076	45,390
Smith	424	885
Stewart	1,144	4,338
Sullivan	2,817	24,324
Sumner	16,115	21,872
Tipton	1,082	18,333
Trousdale	13	200
Unicoi	267	10,550
Union	5,146	11,576
Van Buren	64	300
Warren	5,328	34,238
Washington	9,589	112,169
Wayne	429	40
Weakley	7,950	80,809
White	3,693	49,108
Williamson	1,142	7,436
Wilson	1,705	10,320
Total	338,758	1,979,480
TEXAS.		
Anderson	130	150
Angelina	498	1,955
Archer	3,744	8,185
Armstrong	237	100
Atascosa	6,913	10,726
Austin	350	710
Bandera	218	1,118
Bastrop	3,334	3,560
Baylor	190	101
Bee	769	445
Bell	226	1,535
Bexar	4,689	27,480
Blanco	266	1,126
Borden	6	.....
Bosque	1,209	3,320
Bowie	4,541	3,986
Brazoria	209	190
Brazos	166	1,125
Brewster	780	1,500
Briscoe	1,418	15
Brown	4,254	3,717
Burleson	312	100
Burnet	441	2,766
Caldwell	2,200	6,012
Calhoun	156	1,820
Callahan	16,214	39,086
Cameron	355	100
Camp	81	210
Carson	355	100
Cass	3,836	5,385
Castro	2,922	200
Chambers	87	1,185
Cherokee	1,202	8,355
Childress	449	400
Clay	8,145	39,099
Cochran	40	.....
Coke	144	1,815
Coleman	1,085	5,245
Collin	765	1,452
Collingsworth	1,922	500
Colorado	2,274	1,565
Comal	797	7,195
Comanche	21,352	17,246
Concho	13	.....
Cooke	17,028	31,659
Coryell	353	2,300
Cottle	131	20
Crosby	1,285	.....
Dallas	3,489	2,065
Dawson	416	790
Dewitt	1,154	3,495
Deaf Smith	1,356	.....
Delta	360	1,558
Denton	18,786	37,279
Dickens	874	.....
Dimmit	40	.....
Donley	2,322	80

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
TEXAS—continued.		Pounds.
Duval	7	180
Eastland	19,700	13,580
Ector	195	1,625
Edwards	50	500
El Paso	35,958	64,810
Ellis	399	1,465
Erath	8,789	28,261
Falls	272	2,240
Fannin	4,733	21,736
Fayette	332	909
Fisher	3,149	1,485
Floyd	4,266	50
Foard	1,179	170
Fort Bend	68	40
Franklin	131	360
Freestone	582	2,075
Frio	132	1,640
Gaines	145	.....
Galveston	858	3,304
Gillespie	7,264	67,375
Glasscock	260	750
Goliad	677	5,671
Gonzales	2,344	4,775
Gray	2,836	3,750
Grayson	50,950	239,272
Gregg	145	1,251
Grimes	184	1,910
Guadalupe	4,426	16,539
Hale	12,418	4,300
Hall	649	.....
Hamilton	2,279	3,045
Hansford	9	.....
Hardeman	799	670
Hardin	151	617
Harris	764	1,925
Harrison	1,843	2,055
Hartley	50	800
Haskell	513	1,460
Hays	147	10
Hemphill	705	200
Henderson	525	3,463
Hidalgo	1,418	5,100
Hill	3,706	1,360
Hockley	250	.....
Hood	4,357	10,842
Hopkins	3,533	7,784
Houston	529	2,291
Howard	325	350
Hunt	3,579	10,385
Hutchinson	24	.....
Jack	14,367	25,480
Jackson	175	590
Jasper	340	2,266
Jeff Davis	264	1,600
Jefferson	158	605
Johnson	10,549	12,941
Jones	3,179	1,545
Karnes	156	1,140
Kaufman	1,110	1,156
Kendall	97	450
Kent	605	1,250
Kerr	406	820
Kimble	767	20
King	202	.....
Kinney	28	210
Knox	2,121	3,678
Lamar	1,855	10,177
Lamb	323	.....
Lampassas	134	390
Lavaca	1,590	9,954
Leon	1,222	4,090
Liberty	126	120
Limestone	760	4,855
Lipscomb	796	.....
Live Oak	128	420
Llano	634	800
Lubbock	516	.....
Lynn	123	.....
McCulloch	171	430
McLennan	1,027	765
McMullen	31	500
Madison	207	1,360
Marion	294	455
Martin	609	1,013
Mason	3,683	7,911
Matagorda	37	110
Medina	768	10,822
Menard	2,409	5,550
Midland	445	500
Milam	2,009	7,281
Mills	621	520
Mitchell	1,465	1,528
Montague	63,568	242,818
Montgomery	1,051	.....
Morris	122	740
Motley	731	100
Nacogdoches	244	1,613
Navarro	434	500
Newton	362	4,518
Nolan	738	413
Nueces	105	.....
Ochiltree	125	2
Oldham	2	.....
Orange	180	8,215
Palo Pinto	13,165	40,281
Panola	477	4,225
Parker	12,021	32,281
Polk	74	180
Presidio	89	218
Rains	2,584	3,300
Randall	1,280	.....
Red River	373	672
Reeves	320	.....
Robertson	535	1,681
Rockwall	147	997
Runnels	5,957	145
Rusk	382	2,040
Sabine	1,604	1,279
San Augustine	26	65
San Jacinto	28	1,090
San Patricio	11,279	32,550
San Saba	2,334	6,325
Schleicher	22	20
Scurry	862	2,520
Shackelford	468	110
Shelby	1,481	3,880
Smith	762	2,330
Somervell	2,772	1,749
Starr	13	300
Stephens	3,196	13,455
Sterling	38	280
Stonewall	439	40
Sutton	126	370
Swisher	2,260	125
Tarrant	56,605	54,926
Taylor	7,715	3,030
Terry	343	50
Throckmorton	217	600
Titus	365	2,390
Tom Green	1,945	753
Travis	1,689	2,180
Trinity	40	130
Tyler	832	3,016
Upshur	264	2,092
Upton	5	.....
Uvalde	95	360
Val Verde	10,437	135,880
Van Zandt	694	5,182
Victoria	1,502	2,630
Walker	118	1,000
Waller	12	200
Ward	31,669	18,080
Washington	22,720	87,350
Webb	113	750
Wharton	108	220
Wheeler	4,567	270
Wichita	1,923	4,050
Wilbarger	3,997	4,610

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
TEXAS—continued.		*Pounds.*
Williamson	315	1,945
Wilson	1,216	8,960
Wise	31,150	77,551
Wood	2,115	1,934
Yoakum	78	
Young	3,710	7,395
Zavalla	373	650
Total	712,201	1,862,618
UTAH.		
Boxelder	12,100	87,975
Cache	53	2,135
Carbon	77	30
Davis	9,871	16,804
Emery	302	523
Garfield	10	600
Grand	1,611	31,200
Juab	16	350
Kane	1,050	10,650
Millard	46	1,300
Piute	15	175
Salt Lake	3,252	18,100
San Juan	322	5,380
Sevier	526	1,975
Tooele	1,774	12,371
Uinta	11	
Utah	13,117	137,305
Washington	124,827	985,400
Weber	35,396	263,730
Total	204,455	1,576,363
VERMONT.		
Addison	2,102	36,290
Bennington	530	16,327
Caledonia	33	1,200
Chittenden	1,827	29,312
Franklin	404	8,650
Grand Isle	366	5,720
Lamoille	98	2,837
Orange	218	8,103
Orleans	17	162
Rutland	1,049	24,440
Washington	204	3,586
Windham	1,119	22,220
Windsor	1,321	44,158
Total	9,318	203,011
VIRGINIA.		
Accomac	1,224	4,640
Albemarle	30,919	149,870
Alexandria	576	3,800
Alleghany	2,139	24,632
Amelia	2,545	11,178
Amherst	4,656	15,984
Appomattox	202	1,420
Augusta	21,269	253,046
Bath	1,771	33,089
Bedford	4,600	43,035
Bland	1,124	11,101
Botetourt	3,733	60,650
Brunswick	2,182	20,442
Buchanan	433	2,330
Buckingham	1,821	13,107
Campbell	19,499	112,832
Caroline	2,294	33,225
Carroll	1,497	46,570
Charles City	177	1,746
Charlotte	3,139	22,566
Chesterfield	24,507	129,735
Clarke	1,149	24,667
Craig	1,015	9,491
Culpeper	3,305	68,049
Cumberland	822	13,620
Dickenson	3,928	530
Dinwiddie	3,107	24,820
Elizabeth City	412	8,150
Essex	337	3,600
Fairfax	38,761	231,704
Fauquier	6,786	57,717
Floyd	2,478	125,126
Fluvanna	1,446	11,016
Franklin	1,825	24,972
Frederick	1,704	22,174
Giles	2,932	22,443
Gloucester	2,439	40,904
Goochland	731	6,335
Grayson	807	22,762
Greene	560	13,123
Greensville	11,745	21,983
Halifax	8,837	56,132
Hanover	8,707	65,840
Henrico	13,952	52,930
Henry	927	10,028
Highland	711	18,633
Isle of Wight	1,432	98,746
James City	247	955
King and Queen	580	3,928
King George	480	2,543
Cities.		
Danville	28	550
Petersburg	160	500
Radford	623	8,605
Richmond	70	100
King William	2,116	14,005
Lancaster	1,719	17,420
Lee	1,720	5,844
Loudoun	2,858	79,630
Louisa	3,223	23,319
Lunenburg	5,415	19,823
Madison	4,844	67,180
Mathews	1,650	40,717
Mecklenburg	5,190	62,381
Middlesex	2,481	15,099
Montgomery	1,066	13,888
Nansemond	1,126	273,331
Nelson	10,077	44,200
New Kent	2,390	4,078
Norfolk	1,221	10,029
Northampton	48	1,115
Northumberland	778	25,405
Nottoway	1,951	26,713
Orange	3,710	57,596
Page	3,642	98,899
Patrick	924	19,485
Pittsylvania	4,083	38,505
Powhatan	1,446	17,555
Prince Edward	1,874	12,010
Prince George	3,137	30,735
Prince William	15,030	72,242
Princess Anne	1,847	20,227
Pulaski	2,303	38,700
Rappahannock	912	14,860
Richmond	784	4,023
Roanoke	5,935	36,890
Rockbridge	7,299	84,179
Rockingham	18,783	196,459
Russell	1,020	4,225
Scott	1,012	9,542
Shenandoah	6,637	124,652
Smyth	1,561	50,547
Southampton	234	18,758
Spotsylvania	3,175	55,002
Stafford	10,225	38,795
Surry	3,877	17,660
Sussex	589	9,412
Tazewell	5,273	20,276
Warren	1,655	12,515
Warwick	1,334	21,347
Washington	2,264	38,010
Westmoreland	1,484	10,210

Grape crop of 1909—Continued.

County.	Number of vines.	Production.
VIRGINIA—continued.		*Pounds.*
Wise	1,863	147
Wythe	2,476	65,643
York	3,206	49,687
City.		
Roanoke	12	100
Staunton	1,812	8,420
Total	424,701	4,108,694
WASHINGTON.		
Adams	727	165
Asotin	25,058	53,425
Benton	69,193	103,910
Chehalis	2	100
Chelan	16,872	49,540
Clallam	6	205
Clarke	10,349	55,906
Columbia	699	6,570
Cowlitz	418	12,953
Douglas	3,380	13,160
Ferry	153	150
Franklin	6,229	3,800
Garfield	15,030	102,530
Grant	1,000	1,815
Island	15	760
Jefferson	3	150
King	261	3,325
Kitsap	73	1,203
Kittitas	546	2,000
Klickitat	17,994	90,314
Lewis	515	3,105
Lincoln	5,246	46,750
Mason	6,462	158,375
Okanogan	2,062	3,475
Pacific	2	.....
Pierce	2,138	14,215
San Juan	2	.....
Skagit	9	470
Skamania	210	5,865
Snohomish	30	255
Spokane	1,867	7,420
Stevens	2,331	8,710
Thurston	93	4,010
Walla Walla	7,521	53,500
Whatcom	60	790
Whitman	10,051	150,029
Yakima	114,467	745,019
Total	322,007	1,701,005
WEST VIRGINIA.		
Barbour	3,407	75,521
Berkeley	3,199	25,916
Boone	1,314	16,415
Braxton	3,700	57,698
Brooke	7,026	67,035
Cabell	4,489	44,531
Calhoun	3,046	33,981
Clay	1,851	19,491
Doddridge	3,372	52,654
Fayette	5,256	57,704
Gilmer	1,927	17,135
Grant	4,735	46,800
Greenbrier	4,206	50,307
Hampshire	4,526	79,066
Hancock	4,308	55,065
Hardy	7,038	75,085
Harrison	2,979	71,297
Jackson	7,918	140,886
Jefferson	1,280	22,068
Kanawha	3,059	46,959
Lewis	4,772	118,659
Lincoln	903	6,304
Logan	398	1,369

County.	Number of vines.	Production.
WEST VIRGINIA—contd.		*Pounds.*
McDowell	577	2,596
Marion	4,993	150,739
Marshall	30,447	244,016
Mason	4,700	55,092
Mercer	4,175	13,505
Mineral	3,512	58,098
Mingo	111	800
Monongalia	10,270	142,743
Monroe	3,484	41,865
Morgan	7,675	33,490
Nicholas	1,955	23,522
Ohio	33,277	241,604
Pendleton	2,597	31,757
Pleasants	2,207	22,110
Pocahontas	1,613	31,481
Preston	5,377	93,078
Putnam	3,284	28,611
Raleigh	1,097	10,368
Randolph	3,627	49,075
Ritchie	4,927	106,575
Roane	5,093	87,573
Summers	5,490	22,076
Taylor	1,062	38,516
Tucker	2,274	44,028
Tyler	3,205	51,207
Upshur	3,581	51,075
Wayne	2,438	24,205
Webster	2,406	39,033
Wetzel	7,888	67,458
Wirt	5,183	81,725
Wood	28,455	150,194
Wyoming	475	2,097
Total	284,070	3,224,751
WISCONSIN.		
Adams	470	2,102
Ashland	33	50
Barron	64	481
Bayfield	42	54
Brown	651	8,181
Buffalo	3,146	4,751
Barrett	73	763
Calumet	185	1,485
Chippewa	496	3,598
Clark	354	2,320
Columbia	3,579	12,991
Crawford	3,561	3,576
Dane	10,125	38,457
Dodge	2,361	17,342
Door	1,095	4,640
Dunn	491	4,252
Eau Claire	637	4,410
Florence	1	.....
Fond du Lac	1,423	11,411
Grant	33,191	110,794
Green	5,925	18,294
Green Lake	401	2,352
Iowa	1,846	10,200
Jackson	422	2,253
Jefferson	11,073	46,106
Juneau	1,333	7,455
Kenosha	2,282	27,545
Kewaunee	142	1,825
La Crosse	5,853	55,334
Lafayette	1,198	6,350
Langlade	2	50
Lincoln	10	50
Manitowoc	932	10,234
Marathon	48	80
Marinette	45	470
Marquette	500	2,887
Milwaukee	3,011	19,073
Monroe	1,341	3,981
Oconto	282	2,318
Oneida	4	60
Outagamie	788	9,973

Grape crop of 1909—Continued.

County.	Number of vines.	Production.	County.	Number of vines.	Production.
WISCONSIN—continued.		*Pounds.*	WISCONSIN—continued.		*Pounds.*
Ozaukee	373	3,523	Washington	1,876	13,501
Pepin	311	1,680	Waukesha	3,822	26,608
Pierce	323	1,693	Waupaca	411	5,660
Polk	85	430	Waushara	198	1,085
Portage	93	1,640	Winnebago	1,730	8,287
Price	14	.....	Wood	357	1,159
Racine	2,605	23,839			
Richland	4,493	11,756	Total	148,348	701,329
Rock	11,243	36,465			
Rusk	90	575	WYOMING.		
St. Croix	69	269			
Sauk	10,144	39,375	Big Horn	23	59
Shawano	142	1,016	Laramie	14	.....
Sheboygan	859	10,480	Park	5	100
Taylor	18	85	Sheridan	7	.....
Trempealeau	851	2,315	Weston	25	.....
Union	2,754	6,667			
Walworth	6,620	43,307	Total	74	159
Washburn	249	1,368			

Representative REED. I would be glad to have the committee now hear Mr. Falvay.

Senator CALDER. Mr. Falvay may take up his statement.

Mr. FALVAY. Gentlemen of the committee, here is a 4-ounce bottle of grape juice. It is what you get for 15 cents.

Senator CALDER. This little bottle that you have here contains how much grape juice?

Mr. FALVAY. Four ounces.

Senator CALDER. And I observed as you poured it out it about half filled an ordinary glass.

Mr. FALVAY. Yes, sir.

Senator CALDER. Is that taken straight or is it reduced by the addition of water?

Mr. FALVAY. You can reduce it afterwards. This is pure grape juice.

Senator CALDER. What is the price at which the manufacturer sells a bottle of this size?

Mr. FALVAY. That is sold by the case, 3 gallons in a case, for $7. It contains three dozen bottles.

Senator CALDER. How much would that be a bottle?

Mr. FALVAY. A little better than 10 cents a bottle; between 10 and 11 cents a bottle. That is before the war tax is added.

Senator CALDER. And then the war tax is added to that?

Mr. FALVAY. Yes, sir; of 10 per cent.

Senator CALDER. That means on the manufacturer's cost or the selling price, which?

Mr. FALVAY. That is the manufacturer's selling price; about $6.75 or $7.

Senator CALDER. How much would that be a bottle with the tax on it?

Mr. FALVAY. It would be a little better than 10 cents a bottle, plus 10 per cent war tax in addition. It can not be sold for 10 cents a bottle.

Senator GORE. You mean that you sell three gallons of grape juice contained in bottles like this for what?

Mr. FALVAY. $6.50 for the pints. These are smaller bottles, and sell for $7.

Senator GORE. The figures that you gave me, $4.86, what do they represent?

Mr. FALVAY. It is taken as the basis for a pint bottle. Other bottles sell at a higher or lower price according to size. The pint bottles are taken as the average, and that is the best basis that we can use.

Senator GORE. I was trying to account for the variation between $4.86 and $6.75.

Mr. FALVAY. If you will put it all in 4-ounce bottles it will cost considerably more than $4.86 for three gallons. On the other hand, if you put it all in gallon bottles it will cost less. But the average is on the basis of pint bottles.

Senator GORE. It is put, on the average, on the basis of pints without reference to the particular containers?

Mr. FALVAY. Yes, sir.

Senator GORE. And this is unadulterated grape juice that you have given us samples of?

Mr. FALVAY. Yes, sir; without the addition of sugar or water or anything else.

Senator GORE. That is all I wish to ask I believe.

Senator CALDER. Mr. Falvay, you may continue your testimony.

Mr. FALVAY. Gentlemen of the committee, at the outset I wish to explain that the Chautauqua Lake Erie Fruit Growers' Association is composed of over 3,000 grape growers in what is known as the grape belt of the counties of Chautauqua, N. Y. and Erie, Pa. It was organized 11 years ago for promoting the interests of fruit growers in that section, It does no commercial business of any name or nature. Its officers serve without pay or any recompense. None of the officers is interested in the manufacture of wine or unfermented grape juice or in the sale of the same. They own no stock or bonds of grape-juice plants and have no financial interest in any of the grape-juice establishments in the Chautauqua or any other grape section. We are all grape growers, operating our own farms.

In the States of New York, Michigan, and Ohio, there are over 90,000 acres of vineyards and fully 90 per cent of this acreage is set to Concord grapes. In addition to this large acreage other States have large territories set to grapes. The grape-juice plants are mostly located in New York and Michigan. Lately one of the largest grape-juice companies has built a large plant at St. Catherines, Ontario, because grapes can be produced cheaper in Canada and in greater amount per acre than in the United States. They run about 3 tons to the acre in Canada.

Senator GORE. What do they run over here?

Mr. FALVAY. Last year about 2,600 or about 2,700 pounds to the acre.

There is no Government tax on grape juice in Canada, and there is no duty on the juice shipped to British possessions.

Senator GORE. There is no tax at all in Canada?

Mr. FALVAY. No, sir. The establishment of grape-juice plants in the Ontario grape belt has already greatly affected the volume of grapes required for grape juice, in the United States, and the growers are much concerned over the new movement of the grape-juice manufacturers.

In the past 19 years the Chautauqua and Erie grape belt has produced 107,687 ten-ton cars of grapes and the other grape belts have produced tonnage in the same proportion. During the past eight years there were 4,484,845 gallons of wine made in the belt. Over 90 per cent of all grapes shipped out of the grape belt was shipped for wine purposes. There were 27,000 carloads shipped for wine purposes during the eight-year period. The 27,000 cars would make 40,500,000 gallons of wine in addition to the amount made in the belt. This source of disposing of the grape crop has been eliminated by the prohibition act.

The table market has taken less than 10 per cent of the grapes produced in the Chautauqua and Erie grape belt during the past 10 to 15 years.

The average tonnage per acre for the past five years has been about 1 ton in the Chatauqua and Erie belt. The average amount received per acre during the past five years was $77.88.

Senator GORE. The average amount was what?

Mr. FALVAY. The average amount received for the past five years was $77.88. For the four years prior to 1919 the average price received per acre was $65.25.

Senator SUTHERLAND. What was the average number of tons received per acre? I mean, the average number of tons of grapes grown per acre?

Mr. FALVAY. For the four-year period before last year it was about 2,100 pounds per acre—about 1 ton. Last year the production was about 700 or 800 pounds better.

For the year 1918 with grapes selling at $105 per ton the average price per acre was $61.11, the production being but a little over half a ton per acre. In 1919 the crop averaged 2,800 pounds per acre and the price $92 per ton. The low price is attributed to the effect of the beverage tax of 10 per cent. Grapes can not be grown for $77.88 per acre without a serious loss to the grower. If the vineyards were producing the tonnage that they produced some 10 or 15 years ago it could be done.

I have a 50-acre fruit farm on which are 46 acres of bearing vineyard. My expense of operation for the year 1919 was $3,333.14. The farm and buildings and equipment are worth at least $15,000. The interest on that amount would be $900 which would make a charge of $4,233.14. I have not included any salary for myself for supervision and labor. My gross receipts from the farm were $4,653.92. These figures are taken from my income tax report and shows that it cost me almost $100 per acre to produce my grape crop.

The average acres per person in the Chautauqua grape belt is about 11 acres. General farming is carried on with the grape business otherwise the growers would have to stop growing grapes. Just as Mr. Reed said, it is combined with the growing of grapes, farming is. And if the farmer has a little money at the end of the year he feels that he has made some money. If he has not any

money at the end of the year, of course he knows that he has lost money.

The grape-juice business is not a large business controlled by large capital, the factories being separately owned plants and scattered at different points throughout the various grape belts. It requires to equip and supply in order to successfully operate a grape-juice plant, anywhere from $200,000 to $500,000.

The business of manufacturing unfermented grape juice was originally started in a small way in about 1897. Grape growing at the time was unprofitable, many vineyards having been set out and grapes selling from $8 to $10 per ton which was much less than the cost of raising them.

The grape growers had been encouraged by the Department of Agriculture of the different States to set out more vineyards, and the grape growers relied principally on the grape juice industry to use the grapes grown. The development and use of grape juice has not been very fast, as the public does not consume sufficient, even during the years when grape juice could be sold for from 5 to 10 cents a glass, to use the crop. The Concord grape being the principal grape used, other varieties not being suitable.

The normal crop in the Chautauqua, Michigan, and Ohio grape belts is around 180,000 tons. There is not sufficient market for Concord grapes for table purposes to use the crop. As prohibition has eliminated the market for a large tonnage, the only markets for the grower is for table and grape juice factories. The grape juice factories have used in some years about 65 per cent of the entire crop in the Chautauqua and Erie belt, and a large tonnage in Michigan, Pennsylvania, and New York, and in the Hudson Valley, N. Y. The production of grape juice in gallons from 1911 was as follows:

	Gallons.
1911	1,730,500
1912	1,906,836
1913	2,669,540
1914	3,156,670
1915	1,109,625

Senator GORE. That is for 1915?

Mr. FALVAY. Yes, sir; which shows a heavy falling off.

Senator GORE. Was that because of a bad crop?

Mr. FALVAY. No; they pressed too much in 1914.

The figures for the succeeding years are as follows:

	Gallons.
1916	2,055,560
1917	2,776,100
1918	1,812,000
1919	4,250,000

Senator GORE. You say that in your country 65 per cent of the grapes go into grape juice, and that was even when wine was permitted to be manufactured?

Mr. FALVAY. Sixty-five per cent, did you ask?

Senator GORE. Yes; I so understood you to say.

Mr. FALVAY. That depends upon the size of the crop.

Senator GORE. Taking the country as a whole, what per cent of the grapes has been going into grape juice and what per cent into wine?

Mr. FALVAY. I can not answer that question. Perhaps some of the shippers might do so.

Senator GORE. I wonder if anyone else here can answer that question.

Representative SHREVE. Mr. Pierce, a shipper, would know all about that.

Senator CALDER. Mr. Pierce, can you answer Senator Gore's question?

Mr. PIERCE. I would say that practically two-fifths have been going into grape juice. That is the way I would put it.

Senator SUTHERLAND. Is that for the whole country over?

Mr. PIERCE. No, sir; for the Chautauqua and Lake Erie grape belt.

Senator GORE. What about the country over?

Mr. PIERCE. I could not answer that.

Senator CALDER. What would be your estimate?

Mr. PIERCE. I could not give you an estimate.

Senator SUTHERLAND. Isn't grape juice made up in that section?

Mr. PIERCE. The most of the large plants are. There are two grape juice manufacturing plants in Lawton, Mich., and one in Paw Paw, Mich., and one on the Hudson River.

Senator GORE. Is much made on the Pacific Coast?

Mr. PIERCE. I think not to any great extent. There are some manufacturers there but I do not know of any to any great extent.

Senator GORE. I was wondering, if the price of grape juice was reasonable enough, whether you expected the whole crop could be absorbed by the market in the country?

Mr. PIERCE. Not at present prices, I would say. Grape juice would have to be cheaper than it is now in order for the market to absorb the grape juice.

Senator CALDER. Mr. Pierce, have you any idea of the percentage of the output of grapes used in the manufacture of wines?

Mr. PIERCE. I have some idea; yes, sir.

Senator CALDER. Will you tell us what it is?

Mr. PIERCE. In 1919 practically one half of the grapes were sold for wine purposes.

Senator GORE. For the whole country over?

Mr. PIERCE. I am speaking now of the Chautauqua and Lake Erie grape belt; that practically one-half went for grape juice purposes and practically one-half for wine purposes, and practically none for table purposes.

Senator GORE. If this tax were removed I take it that under the circumstances the price might not be reduced correspondingly; could that be done?

Mr. PIERCE. I think if the tax were removed that grapes would sell perhaps for a cheaper price, but if the tax is not removed I can not see how we can market our grapes at all. Under the prohibition law we will not be able to sell any grapes for wine purposes, and the grape-juice business would be practically all that we have left. I can not see how these grape crops can be consumed by the grape-juice plants at the present prices made necessary by the high tax.

Senator GORE. The trouble about this tax is that if the producer is absorbing it now he can not reduce the price of his product even if the tax is removed without continuing to take a loss. You say that

the only advantage to the producer in removing the tax is that he can then retain a larger pert; that what he sells he can sell at the same price and keep a large amount of the return.

Mr. Chairman, I will now have to ask the committee to excuse me, as I have a resolution I want to bring up before the Committee on Agriculture.

Senator CALDER. We are very sorry, Senator Gore, that you can not remain with us.

Senator GORE. I would like very much to remain here and hear all of the statements, but I can not do so this morning.

Senator CALDER. Mr. Falvay, you may resume your statement.

Mr. FALVAY. I would like to make a statement in connection with that matter: Our position and idea with regard to the reduction in the demand for grape juice on account of the high cost thereof is not only because we have to pay a 10 per cent tax but also a fountain tax in addition. We pay a fountain tax of 10 per cent where the grape juice is reduced at the fountain. And we are paying that fountain tax just the same as other fruit juices are paying it. Pineapple sirup and orange sirup pay 10 per cent fountain tax, but they pay only that tax. We feel that if this tax were taken off of grape juice that the price of grape juice might be reduced and the demand for it would thereby be increased, and that we could produce our crops at a cost that would enable us to continue in the business. But owing to the fact that this tax of $32 is against us it works very much against our business. We should have more money for our grapes than we have been getting on account of the high price of labor and other costs of production.

Senator GORE. This tax would amount to how much a gallon?

Mr. FALVAY. It is 19 cents a gallon on 170 gallons of grape juice to the ton of grapes.

Senator GORE. And that figures out $32?

Mr. FALVAY. Thirty-two dollars and some cents a ton, and the manufacturers pass that along. You might ask why they do not pay it? And perhaps I can answer that question.

Senator GORE. They shift that back to the industry instead of shifting it forward to the consumer.

Mr. FALVAY. The consumer has to pay it.

Senator GORE. I thought your contention was that they shifted it back and that the producer paid it.

Mr. FALVAY. No; the increased cost of production has to be paid by the consumer.

Senator CALDER. Senator Gore's question was, whether you claimed the grape grower paid it?

Mr. FALVAY. There is a tax of $32 a ton.

Senator GORE. The consumer does not have to pay it if the producer absorbs it. If it is so worked as that the producer pays the tax; if the manufacturer shifts it back to the producer instead of forwarding it on to the consumer then the consumer pays no tax at all.

Mr. FALVAY. The only way that he shifts it back on us is that these manufacturers are forced to buy their grapes for less money than it costs us to produce them. But on account of the present high price of grape juice and the decreased demand for it that is true. I understand that 200,000 three-gallon cases of grape juice under

contract have been declined, or that the contracts have been canceled this year on account of the high price of grape juice.

Senator GORE. I wish you would get something into the record about the food value of grape juice.

(The statements relative to the food value and medicinal value of grape juice, were subsequently submitted and are here printed in full as follows:)

UNITED STATES PHARMACOPŒIAL CONVENTION,
Washington, D. C., April 5, 1920.

Hon. DANIEL A. REED,
House of Representatives.

DEAR MR. REED: My attention has been drawn to the fact that a revenue tax is now levied against grape juice, whereas some other fruit juices are tax free. My attention has also been called to the additional fact that a pure synthetical beverage of very inferior quality to grape juice, and which contains as one of its ingredients the alkaloid caffein, well known in its free state to be highly injurious, is also tax free. Grape juice is a food product of high value by reason of the natural sugars it contains. Its mineral constituents combined with a natural acid, tartaric, gives it additional wholesomeness and palatability. While I realize the necessity of taxation, in which all persons and all articles should share, I believe that I am justified in protesting against such a discrimination as that to which I have referred. In the interests of health and nutrition, an article so valuable as grape juice should not be made to suffer from discriminatory taxation. I believe it would be a matter of justice to tax synthetic products, especially those which contain elements injurious to health and remove the burden of taxation, in so far as possible, from natural and wholesome food products.

I am, respectfully,

H. W. WILEY.

LIFE EXTENSION INSTITUTE (INC.),
New York, April 3, 1920.

Mr. A. M. LOOMIS,
Representative Chautauqua and Lake Erie Fruit Growers' Association,
Washington, D. C.

MY DEAR MR. LOOMIS: In the matter of grape juice, I wish to state that unfermented grape juice is a wholesome and nutritious food and a valuable source of fuel food through its high percentage of carbohydrates, not only in a normal general dietary, but in conditions of low nutrition, convalescence, and other states where a rapidly available fuel food is required in a pleasant and palatable form.

There is no more reason for discriminating against grape juice than against any other wholesome and desirable food substance, and because of its availability in states of illness, when ordinary food substances of a similar character might not be especially exhibited, I am opposed to any restriction upon its sale or production.

Very truly, yours,

E. L. FISK, M. D.,
Medical Director.

CHICAGO, ILL., *April 3, 1920.*

Grape juice is a valuable food beverage and is recommended by physicians for use in the sick room in homes and hospitals throughout the country. In fact, grape juice was first brought into use through the medical profession and the hospitals. It is served to fever patients as a matter of routine in practically all hospitals and sanatoriums and is extensively prescribed for nearly all patients because of its pleasing taste, flavor, digestibility, and refreshing service, as well as its food value.

O. F. BALL,
President Modern Hospital Publishing Co.

Food and Medicinal Value of Grape Juice.

Library of Congress,
Legislative Reference Service,
April 3, 1920.

General.[1]—"A very large industry is now established in this country in the manufacture of unfermented juice of the grape. The ease with which this unfermented juice may be pasteurized or sterilized and kept indefinitely has caused the business to grow rapidly in magnitude. Localities in which grape juice is manufactured are widespread, but especially is the business conducted on a large scale in the State of New York. There are many areas in this State suited to grape culture, and especially a narrow strip of land extending along Lake Erie from near Buffalo to Erie. This locality is peculiarly suited to the growth of grapes and without doubt is the best grape region on the east side of the Rocky Mountains. In Ohio there is a like region of excellent grape land, especially near Sandusky. Other important areas for the manufacture of grape juice are California and, to a limited extent, New Jersey. The variety of grapes employed is rather extensive, but the principal varieties are Catawba, Norton, Clinton, and Concord."

Nutritive value of grape juice.—The chemical composition and nutritive value of the grape has been determined by the experiment stations of the United States Department of Agriculture. The following figures are given for the edible portion alone. That is, the skin, seeds, etc., have been excluded and the figures give the food value of what remains. In the case of grapes when the skin and seeds are separated, practically all that remains in addition to the grape juice is a very small amount of fiber—about 4.3 per cent. The following figures, giving the chemical composition and fuel value of the edible portion of grapes would therefore be practically the same for pure grape juice.

Chemical composition and fuel value of edible portion of grapes.[2]

Water (per cent)	77.4
Protein (per cent)	1.3
Fat (per cent)	1.6
Total carbohydrates, including fiber (per cent)	19.2
Fiber (per cent)	4.3
Ash (per cent)	.5
Fuel value per pound (calories)	450.0

The above table shows that the edible portion of grape contains 22.6 per cent of solids. The average total solids in the expressed juice of the grape equals 22 per cent.[3] These figures show that the results as given in the above table are approximately applicable to pure grape juice.

For purposes of comparison the fuel value per pound of certain other foods may be given as follows:[4]

Fuel value per pound.

	Calories.
Beef, chuck, including shoulder, medium fat, average	865
Beef, flank, medium fat, average	1,240
Beef, round, medium fat, average	950
Wheat flour, patent roller process, bakers' grade, average	1,665
Corn, green, edible portion, average	470

Effect of fruit juices on the system.[5]—"Dr. Lorand says that in fevers, fruit juices are very beneficial, as the nourishment to be obtained from some of them may be in the only form that can be tolerated. Fruit juices 'have a thinning effect upon the blood, thus diminishing its viscidity, and are consequently an excellent drink for arteriosclerotics.' They also have stimulating action upon the bowels; the uric acid eliminating and alkalinizing properties of certain fruit juices are great and their use is beneficial in gout. * * * Fruit juices favorably affect diureses; some juices, such as apples and bilberries, are not well tolerated by persons suffering with hyperacidity of the stomach; for diabetes, fruit juices low in sugar are recommended. * * *

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[1] Source: Wiley, Harvey W., M. D., Beverages and Their Adulteration. Philadelphia, P. Blakiston's Son & Co., 1919, p. 122ff.
[2] U. S. Department of Agriculture, Office of Experiment Stations, Bulletin No. 28, p. 71. Washington, 1899.
[3] See Wiley, p. 122.
[4] Ibid., 191f.
[5] Fairburn, William Armstrong. Man and His Health, Liquids, p. 307ff. The Nation Press, 1910.

"* * * Moras recommends the juices of apples, lemons, limes, and grapes, the latter two of which are quite generally extracted and preserved and can be procured 'in nearly their natural state, so that they retain much of their remedial or beneficial properties.'"

[C. D. BLACHLY.]

Senator GORE. I must now ask to be excused as I have a resolution coming up in the Committee on Agriculture and Forestry and must be present. I am very much interested and shall be glad to consider this matter, and only wish that I might be able to stay here.

Mr. FALVAY. It will be seen by the figures I have given that the grape growers are largely dependent for the disposition of their crops on the manufacture of grapes into grape juice, and if, due to the high price, grape juice will not sell, there will be no market for the grapes and this industry, which has an investment of about $40,000,000, will become so unprofitable that the growers will have to pull out their vineyards. This will seriously affect the entire community, as most of the banks and business in those sections are dependent upon the grape industry.

For some years after the grape-juice industry was commenced the manufacturers were unable to sell the amount of grape juice that was produced and as a result of it many of the vineyards were taken out. Mr. Reed said we had 42,000,000 acres; we had 36,000 acres last year. We can not afford to keep up our vineyards on account of the price received for our grapes.

In the year 1914, when over 3,000,000 gallons were produced and put up, it did not sell, and this juice was on hand for some years afterwards, the result showing in the 1915 production.

These facts illustrate that if grape juice does not sell, the growing of grapes will be unprofitable and will result in the destruction of the grape-growing industry.

Grapes are a perishable fruit that can not be held for any length of time, and as the price of the crop depends on the grape-juice factories, if the grape juice factories can not sell the grape juice, a large portion of the crop will be a loss. The factories take the crop during the three or four weeks of the harvesting season, press it into juice, store the juice in their plants, where it is kept for some months before bottling, placing it on the market the following season. The use of grapes for grape juice saves the product at the time of the year when there would be no other way of disposing of it.

The building up of the grape-juice business has been a slow and hard undertaking. One of the large concerns is reported to have lost about $1,000,000 trying to make the business profitable, and other factories that did not have the financial backing were at the point of bankruptcy and the stockholders had to give up their interests in the plants in order to obtain financial backing to continue; the principal trouble being to get large enough distribution. I know of these two cases which occurred within 16 miles of where I live.

With short crops the manufacturers were able to dispose of their output, but with normal crops the factories have been obliged to carry the juice over in their cellars for several years. There was not enough demand for it, and this condition existed when grape juice sold for about one-third of the present price.

The present tax law provides for a tax of 10 per cent of the selling price of grape juice as sold by the manufacturers.

This, therefore, taxes the bottles, cases, containers, labels, labor, freight, and every item that goes into the manufacture of grape juice 10 per cent, making a tax of approximately 30 cents per gallon on the juice itself.

The synthetic drinks that are manufactured by the manufacturers of soft drinks do not, in many cases, cost as much as the tax itself on grape juice.

Grape juice is principally sold as a beverage at the soda fountains, and in addition to the 10 per cent tax it must pay the beverage tax, and as the cost of the product has become very high during the past few years due to the cost on boxes, cases, bottles, labor, freight, and so forth, is makes the tax in addition at the soda fountain double that of any other soft drink.

When grape juice is consumed at the fountain it is generally reduced by one-half to two-thirds water or carbonated soda, and it is the only fruit sirup that is reduced at the fountain with water or carbonated soda and that is taxed as sold by the manufacturer; strawberry sirup, pineapple sirup, loganberry sirup, chocolate sirup, vanilla sirup, Coca Cola sirup, lemon sirup, and all of this class of sirups not being taxed as so sold. Why grape juice should be singled out for this 10 per cent tax and others not obliged to pay it we can not understand.

A small glass of grape juice must now sell at retail at from 15 to 20 cents due to the tax and the increased cost of labor and supplies. And you will notice that the 4-ounce bottles we brought here did not fill an ordinary glass half full. In order to produce it we must have vineyards and grape juice factories. It is obliged to compete with the synthetic drinks which can be manufactured by anyone who can buy the few supplies necessary to make up their compound and which can be produced at a cost much less than the tax we are obliged to pay, and sell at from 5 to 10 cents a glass.

We are reliably informed that as a result of the high cost of grape juice, the wholesalers and retailers who distribute grape juice have canceled orders for hundreds of thousands of cases during the past few months and that last year's production will not be consumed by the consuming public this year. With this situation which now confronts us, unless the cost of grape juice can be reduced, there will be no market for the future grape crop. Grapes can not be kept for any length of time and it will result in the crop being sold at prices much less than the cost of production.

Senator CALDER. Is there any tax on cider?

Mr. FALVAY. Yes, sir; a tax of 10 per cent. It must have less than one-half of 1 per cent of alcohol in it. If a man has a cider mill and presses out cider he pays a 10 per cent tax.

Senator CALDER. There is a tax on cider the same as on grape juice?

Mr. FALVAY. Yes, sir; a 10 per cent tax.

People will not buy grape juice at 15 and 20 cents a glass when they can buy other fruit juice drinks and sirups at from 5 to 10 cents a glass.

We fear that if the factories engaged in the manufacture of grape juice find they can not market the same, due to its high cost that they will convert their plants into other fruit juice industries that can be sold without paying any tax. If it is the intent of Congress to single out this particular industry for this 10 per cent tax and not

tax other fruit sirups and the cost of grape juice is so high that it can not be sold, that will be their only alternative.

The law of supply and demand is regulated by the price at which an article can be sold and compete with other products of a similar character, and if grape juice manufacturers can not sell grape juice, due to this tax and high cost, the grower, in order to sell his grapes, must sell at prices of other products which can compete, and to do this they will be obliged to sell grapes at less than their cost to produce them.

Other products of the soil are not taxed in this way and we feel that a great injustice is being done to the grape growers; and we can not understand why loganberry sirup, chocolate sirup, vanilla sirup, lemon sirup, and all this class of sirups should not be taxed the 10 per cent that the grape juice is reqired to pay. They are all served in the same manner, by using a portion of the juice and adding water or carbonated soda. The sale of grape juice should be encouraged. It is a food product beneficial to health.

Senator CALDER. Last year we had some witnesses on this subject, and some other witnesses have discussed the tax on loganberry juice.

Mr. FALVAY. That has been taken off.

Senator CALDER. By what authority?

Mr. FALVAY. They appealed that matter. Representative Reed can answer about that.

Representative REED. It was claimed that loganberry juice is a purely fruit sirup and that they can not drink it without adding something to it. So under the law as it stands they ruled that it just slips out from under this law. It is not taxed except when mixed at the fountain.

Senator CALDER. The grape-juice people got that ruling?

Representative REED. Oh no; because grape juice is specifically mentioned in the law.

Senator SUTHERLAND. The loganberry juice people went down and got that ruling right after the hearing here?

Representative REED. Yes, sir.

Senator CALDER. You may continue your statement, Mr. Falvay.

Mr. FALVAY. Prohibition has not been of any benefit to the grape-juice business, as the elimination of alcoholic drinks has resulted in many breweries converting their plants into soft-drink plants, and most of these beverages are put on the market and sold to the consumer at 25 to 50 per cent of the cost of grape juice. Some have processes that do not get quite that much out, but that is the average.

The tax discriminates against grape juice as against most of the other soft drinks, as grape juice, in order to be kept unfermented and nonalcoholic, must be put up in sealed containers. In order to get distribution, the goods are shipped all over the United States and to foreign countries. The manufacturers are taxed on the containers, which tax on containers, freight, labor, etc., is more than the tax on the juice itself. The other fruit sirups and soft-drink manufacturers are able to deliver their products from small plants situate near the point of distribution, take back the cases and bottles, and therefore are not obliged to be taxed on the same. The grape-juice bottles, cases, etc., can not be taken back, as the freight from the different points in the United States would exceed their value, so that in this particular industry the Government obtains a tax on all its supplies and on its competing industries no tax.

Grape juice pays three taxes. Most of its competing products pay only one. Grape juice pays, first, tax of 10 per cent on the grape juice itself; second, tax of 10 per cent on labor, freight, cases, bottles, caps, labels, and cost of sale; and, third, a beverage tax of 10 per cent at the fountain.

Other fruit sirups pay a tax of only 10 per cent at the fountain, and as other products are sold at from 5 to 10 cents, pay only 1 cent tax at the fountain, whereas grape juice must pay from 2 to 3 cents.

The manufacturers of other fruit sirups which are served at the fountain in identically the same manner pay no tax on their selling price, and their products pay only one tax of 10 per cent at the fountain where sold.

Grape juice is rarely ever used in its natural form, it being too heavy and strong for a beverage and is practically always reduced one-half to two-thirds of water or carbonated soda so that in the manner of it it is used in identically the same manner as loganberry juice, or fountain sirups made from fruit juices, chocolate, vanilla, and other flavors.

Loganberry juice in its natural state was originally taxed, but on the matter being taken up by the Loganberry Co. the tax was refunded and they are not obliged to pay any tax on loganberry juice when sold in its natural state without reducing. Grape juice, which is served in identically the same manner as loganberry juice by diluting with water or carbonated soda, must pay the tax. This enables a class of fruit product, which does not require near the investment in vineyards or the years to produce vineyards, to have an advantage over the grape growers. Why this discrimination, is hard to understand by the grape growers.

The grape juice made in 1919 was three times greater than the amount made in 1918. The juice is sold the year following pressing and the manufacturers will have to sell three times the grape juice in 1920 that was sold in 1919 if the demand for grapes in 1920 is to be as great as in 1919, and judging from reports of sales at this date that increase is not made.

A ton of grapes will produce 170 gallons of grape juice. The 10 per cent tax on grape juice, based on the sale of pints, which is a fair basis in connection with quarts and 4-ounce bottles, is $32.50 on a ton of grapes. This amount is greater than the growers received several years ago.

The tax is paid by the consumer of grape juice. It is paid to the Government by the manufacturers and then passed along to the trade. The high price of grape juice to the consumer has reduced the sales and the ultimate result is that the grower of grapes will be obliged to cut down production or sell at a loss.

The increased cost to consumer in 1919 on grape juice is due to increased production cost and 10 per cent tax on selling price.

These figures are based on pints, 2 dozen per case, containing 3 gallons:

Net cost to manufacturer, 1918, with 1 cent tax per gallon	$3.56
Increased production cost, 1919	1.30
Total cost to manufacture, 1919	4.86
Tax of 10 per cent on 1919 selling price	.57
Total cost to manufacturer with 10 per cent tax, 1919	5.43

Cost of bottles, cases, manufacturing, and freight, 1919	2.61
Cost of 3 gallons of juice, 1919	2.25
Tax per gallon of grape juice	.19

Tax per gallon, 1918, 1 per cent.
Percentage of increase on 1918 tax, 1,900 per cent.

Cost to manufacture for 1919, with 10 per cent tax added	5.43
Cost, 1918, with 1 per cent tax	3.56
Increased cost over 1918, over 50 per cent	1.87

The Hawley bill, passed by the House, fixes a manufacturer's tax of 2 cents a gallon on unfermented grape juice. A tax of 2 cents a gallon is a tax of $3.70 for each ton of grapes made into grape juice. The manufacturers have agreed to stand this tax and the grape growers have expressed their willingness to the Ways and Means Committee of the House to indorse the compromise. There is no valid reason why the grape product should be taxed at all when taken into consideration that other fruit sirups are not taxed.

We are 100 per cent Americans, and recognize the fact that the Government must have money in order to meet its obligations. We therefore are willing to pay our share but we do most seriously protest against this discrimination and unjust taxation.

We are not appearing before you for a guarantee of 1 cent for our time, labor, and capital, nor do we ask shorter hours of labor on the farms. We do not ask for an insurance against frosts in the spring or freezing in the fall, or damage by insect pests and plant diseases, and we have had them all from time to time. We simply ask to be allowed to maintain our industry and live in our simple ways on the products of the soil and be enabled to contribute our honest share toward the proper conduct of the Government.

We, therefore, ask that the Hawley bill be passed by the Senate and that favorable action be taken by that honorable body at once.

We ask that the law will take effect not later than September 1, 1920, which date will protect the grape growers for this season's harvest.

Representative REED. Mr. Chairman and gentlemen of the committee, as a part of this record and in reply to your inquiry with reference to the tax on loganberry juice, in this pamphlet of treasury decisions, of date October 16, 1919, there appears a ruling by the Department of Internal Revenue which I wish to include in the hearing, being tax decision 2932, to be found on page 19 of the pamphlet.

Senator CALDER. That may go in.

(The ruling referred to is here copied in full in the record, as follows:)

TAX ON BEVERAGES (T. D. 2932).

The liability of a manufacturer to tax upon sales of bottled juices under section 313 of the act of October 3, 1917, and section 628 of the act of February 24, 1919:

TREASURY DEPARTMENT,
OFFICE OF COMMISSIONER OF INTERNAL REVENUE,
Washington, D. C.

To collectors of internal revenue and others concerned:

Under date of August 21, 1919, the Attorney General rendered an opinion upon the question of the scope, meaning, and application of section 313 of the act of October 3, 1917, and section 628 of the act of February 24, 1919.

Section 313 of the act of October 3, 1917, provides—

"That there shall be levied, assessed, collected, and paid—

"(a) Upon all prepared sirups or extracts (intended for use in the manufacture or production of beverages, commonly known as soft drinks, by soda fountains, bottling establishments, and other similar places) sold by the manufacturer, producer, or importer thereof, if so sold for not more than $1.30 per gallon, a tax of 5 cents per gallon; if so sold for more than $1.30 and not more than $2 per gallon, a tax of 8 cents per gallon; if so sold for more than $2 and not more than $3 per gallon, a tax of 10 cents per gallon; if so sold for more than $3 and not more than $4 per gallon, a tax of 15 cents per gallon; and if so sold for more than $4 per gallon, a tax of 20 cents per gallon; and

"(b) Upon all unfermented grape juice, soft drinks, or artificial mineral waters (not carbonated), and fermented liquors containing less than one-half per centum of alcohol, sold by the manufacturer, producer, or importer thereof, in bottles or other closed containers, and upon all ginger ale, root beer, sarsaparilla, pop, and other carbonated waters or beverages, manufactured and sold by the manufacturer, producer, or importer of the carbonic acid gas used in carbonating the same, a tax of 1 cent per gallon; and

"(c) Upon all natural mineral waters or table waters, sold by the producer, bottler, or importer thereof, in bottles or other closed containers, at over 10 cents per gallon, a tax of 1 cent per gallon."

Section 628 of the act of February 24, 1919, provides—

"That there shall be levied, assessed, collected, and paid in lieu of the taxes imposed by sections 313 and 315 of the revenue act of 1917—

("(a) Upon all beverages derived wholly or in part from cereals or substitutes therefor and containing less than one-half of 1 per centum of alcohol, sold by the manufacturer, producer, or importer, in bottles or other closed containers, a tax equivalent to 15 per centum of the price for which so sold; and upon all unfermented grape juice, ginger ale, root beer, sarsaparilla, pop, artificial mineral waters (carbonated or not carbonated), other carbonated waters or beverages, and other soft drinks, sold by the manufacturer, producer, or importer, in bottles or other closed containers, a tax equivalent to 10 per centum of the price for which so sold; and

"(b) Upon all natural mineral waters or table waters, sold by the producer, bottler, or importer thereof, in bottles or other closed containers, at over 10 cents per gallon, a tax of 2 cents per gallon.".

The questions asked of the Attorney General were:

"(1) Does the tax imposed by these sections apply to bottled noncarbonated fruit juices, somewhat concentrated, recommended by the manufacturer for beverage use without addition of water?

"(2) Does the tax imposed by these sections include bottled noncarbonated fruit juices, other than grape juice, recommended by the manufacturer for beverage use in a diluted form?"

In the course of his opinion the Attorney General states that it would scarcely be denied that the term "soft drink" as used in the taxing acts "would include any beverage, such as is commonly sold at soda fountains, into which fruit juices enter as an ingredient for the purpose of giving either flavoring or color, and I can entertain no doubt that a beverage whose chief or even sole ingredient is fruit juice is equally included within the term. * * * I do not mean to be understood as saying that the fact that the manufacturer recommends or does not recommend his bottled product for use undiluted, as a beverage, is necessarily controlling. I think the real question is whether it is in that form fit for use as a beverage, and is so used. If it is commonly used as a beverage, either diluted or undiluted, according to the taste of the drinker, it is, in my judgment, subject to the tax." His conclusions were as follows:

"(1) The tax imposed by both the act of 1917 and that of 1918 applies to bottled noncarbonated fruit juices, although somewhat concentrated, if as bottled they are reasonably suitable for use as beverages and are so used without the addition of water.

"(2) Such bottled fruit juices, when reasonably suitable for beverage purposes and so used only in a diluted form, are not of themselves soft drinks and are not subject to the tax imposed on such drinks, either by the act of 1917 or that of 1918.

"(3) A preparation of fruit juice and sugar, which is not reasonably suitable for beverage purposes and is not so used, but which is used ot produce a palatable beverage by being mixed or diluted with water by soda fountains, bottling establishments, and other similar places, is a prepared sirup within the meaning of section 313 (a), and was, while that act was in force, subject to the tax levied upon such sirup.

"(4) Such a preparation is not subject to tax under the act of February 24, 1919, since that act omitted the tax upon prepared sirups."

Article 4 of regulations 52 is hereby amended to read as follows:

"ART. 4. *Who is a manufacturer.*—The person who prepares or produces a liquid in a form suitable for consumption as a beverage is a manufacturer. If an article is sold before it has assumed such form or reached such stage of manufacture the vendor

is not considered a manufacturer. Thus, sirups and extracts which require further process of manufacture before becoming suitable for use as a beverage are not taxable, but the tax is on the sale by the person subjecting them to the process of manufacture which results in the production of a liquid suitable for consumption as a beverage. Unfermented fruit juices other than grape juice put up in bottles or other closed containers in a form which is fit for use as a beverage and which is commonly so used, whether diluted or undiluted, according to the taste of the drinker, are subject to the tax. All unfermented grape juice sold in bottles or other closed containers is subject to the tax. A person who is employed to make a beverage and receives for it the cost of materials and labor plus a specified profit shall be considered a manufacturing agent and the person who procures the preparation of the beverage for purposes of sale will be considered the manufacturer."

DANIEL C. ROPER,
Commissioner of Internal Revenue.

Approved October 7, 1919.

CARTER GLASS,
Secretary of the Treasury.

Representative REED. Mr. Chairman, Congressman Begg is here and anxious to get away, and he would like to make a statement.

Senator CALDER. The committee will be glad to hear Representative Begg.

STATEMENT OF HON. JAMES T. BEGG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO.

Representative BEGG. Mr. Chairman and gentlemen of the committee, I will only take a brief amount of your time. Realizing that any tax question is always a complex one and always has back of it a selfish interest I want to lay before you this proposition for your consideration in coming to your conclusions on this question: In the first place, there can be only two reasons for a tax. One of those reasons is to put the business, whatever it is, out of existence; and the other is, to raise revenue.

Now, I am sure that nobody in this country wants to put the grape-juice people out of business. Therefore that branch of the subject is not under consideration. The remaining reason is that of a revenue tax for the conduct of the Government. It is possible to levy a tax in such a way that rather than produce a revenue it will have the tendency to decrease the revenue that is already coming from that particular source.

I mean that in this way: The amount of tax on any product is immaterial so long as that tax is equally and equitably applied to to every single article within that class unless that tax gets to the point of what I call absorption; namely, where it tends to decrease the business in that particular line, and therefore does not give the same volume to be taxed. Then the point of absorption, as I call it, would have been reached and the revenue derived by the Government be decreased. But up until you reach that point the amount of the tax has no bearing whatever providing every single commodity in that class has the same rate of tax.

Now, gentlemen of the committee, the point I want to present for your consideration at this time is this one fact: Not every article in the same class with grape juice bears the same rate of taxation. And because it does not bear the same rate of taxation it becomes an injustice and acts as a handicap to the production of the grape-juice industry. In that situation one of two things has got to come about:

To my mind it is not a question whether these manufacturers shift the burden back on the producer or whether they shift it forward on the consumer. Whichever way it goes if it becomes discriminatory it is bound to react and lessen the production of that particular thing. Whenever the producer can not make as much money out of his acre in grapes as he can in corn, wheat, oats, or any other farm product he is going to quit growing grapes and get into something else.

That is a principle that you gentlemen know as well as I do, and perhaps better. If it goes the other way and they shift it on to the consumer then whenever it gets to the point where it makes the commodity taxed sell higher in relation to the other items in that same class the buying public will buy the cheaper product if it is satisfying to their particular desire. The only excuse I can see for the absorption of this tax by the manufacturers would be that they are making an unholy profit; and I am very frank to admit to you that I do not know whether they are or are not; but I certainly think it fair to conclude that they are making no more than manufacturers of similar products that belong to the same class of commodities, and hence I can not see how they can be expected to absorb it.

The grape-juice industry is a gigantic industry in the communities where it is found; and it is just as important to my section, or to certain portions of my section; and it is just as important to the sections around Chautauqua County, N. Y., and Erie County, Pa., and in other sections, as the steel industry is to Pittsburgh and Youngstown and other steel centers, and it means just as much to the citizenship engaged therein.

Those people, when they are compelled to carry the burden, and as a result of the handicap put on them they are compelled to change their line of business, are naturally grieved and dissatisfied, and I believe justly so.

I think that is about all I want to present for your consideration. It seems to me that is the only thing that is before your committee. In the first place, is this an industry that should be encouraged and fostered and permitted to continue? Then, secondly, is it carrying a bigger share of the tax burden than all other articles in its class? It seems to me if your conclusions are favorable in both these instances that your committee is face to face with one of two options, or it would strike me so, namely, tax every other article in this class equal with the tax on grape juice or reduce this tax to conform with the others.

Gentlemen of the committee, I thank you for this opportunity to make a brief statement, and there are gentlemen here who are well informed on all the facts in regard to grape production, and I hope you will be able to hear them. I thank you.

Representative REED. I am going to ask that Mr. Pugsley be permitted to speak now. He is a director of the Southern Michigan Fruit Association and is also a grape grower.

Senator CALDER. The committee will be glad to hear Mr. Pugsley.

STATEMENT OF MR. M. H. PUGSLEY, DIRECTOR OF THE SOUTHERN MICHIGAN FRUIT ASSOCIATION, PAWPAW, MICH.

Mr. PUGSLEY. Inasmuch as Mr. Falvay has covered the ground thoroughly, and as it seems to me from our standpoint as growers that our conditions in southwestern Michigan are very much the same as those in western New York, I will not need to read what we have here in the shape of a statement in detail, because many of our thoughts are the same he has presented to you.

In the first place, let me say that Mr. Thornton, who is the president of our Southern Michigan Fruit Growers' Association, is here and I would like to divide what little time you have assigned to me with him. I am sure there are a few thoughts he wishes to present and which I will not think of.

The time was, and not many years ago, when we were able to market the product of our section—which, by the way, covers about 4,000 growers as nearly as I can estimate the number, and about 40,000 acres of grapes. This section is confined mostly to the counties of Van Buren and Berrien in southwestern Michigan. Through the association that Mr. Thornton and I represent we have been able to market perhaps half of the grapes that we produced in what we term our section—which was the Van Buren County part of the southwestern portion of Michigan. We have been able to market these grapes in baskets up to within the last few years, when the grape-juice factories commenced doing business. In those years when we were marketing those grapes in baskets they cost us not to exceed 2 cents apiece or $20 a thousand.

Senator CALDER. For the baskets?

Mr. PUGSLEY. Yes; that is what I mean—the baskets for these table grapes. We were then catering to the table-grape trade. Bye and bye the jumbo basket, as we called it, came into use, and in it went the poorer class of grapes which went on the market, for grape juice or wine purposes.

As to the table grape in years gone by that we were marketing and which we produced in our country, we were able to produce and market them from year to year at a price around 10 cents a basket f. o. b. Lawton, which was our station.

Senator SUTHERLAND. How much did a basket hold?

Mr. PUGSLEY. They were called an 8-pound basket, but held 6¾ pounds net. The baskets since then have been standardized so that now we are using what we call the standard basket and which holds 5¾ pounds or 6 pounds of grapes. The increased cost of baskets has meant a great deal, and we are not able to get a price on them this year. That is one of the propositions we are up against. We are anxious for this market for grape juice and that is one of the reasons that we can not see where our market is coming from. As to baskets, lumbermen are on the ground buying up all the logs that they can get at prices ranging from $35 a thousand for low-grade stuff up to $85 or $90 and $95 for white ash and white oak and the better class of timber. Now, then, the poorer stuff, which makes basket bottoms, is bringing readily $35 a thousand in the log. This includes all kinds of elm, maple, beech, and lower grades of oak, and for this stuff they are willing to pay that price. The basketmen are not

willing to give us any price on baskets. We do not know what we are going to have to pay.

The baskets have increased in value from year to year from around 2 cents apiece up to the present price which will be this year between 4 cents and 5 cents apiece, and with the increased price that we are obliged to pay for the labor to perform all kinds of work we can not get a market for our grapes in baskets as we have formerly. We can not put them on the market at all at old prices. So when we get up to the point where we have a freight rate of 5, 10, 15, or 20 cents for the 4-quart containers f. o. b. Lawton, of course our market is limited. We can sell a few, but we can sell only a few at those prices.

The juice factories have come on the ground and they have commenced to buy our product in the past few years, and they have stimulated our industry, that is, they have helped us to maintain it; they have taken enough of our product so that we have continued in the business; and so we are interested in these grape juice factories.

In the past, as has been stated already, they take our grapes, and they put them up into what we call "pure product"—nothing introduced into this grape juice but the juice of the grape itself, under the guarantee that there shall be no dilution whatever.

I would be glad to tell you a little story that the manager of one of the juice factories told me in reference to the purity of the juice, but I do not take it that you want anything of that kind.

We are anxious that the juice factories shall be able to live, and we know that in order for our own industry to be maintained at the present price, at least the prices we have had for the last two years must be maintained; and we do not see how we are going to compete with the other industries that we have to compete with unless the price can be even better than it has been.

If you drive these 4,000 men which we have in our section of the country out of the grape business, you pretty nearly drive them out of business entirely, because these acres that have been planted to grapes have been cropped to grapes for several years and are not in condition to put back into growing wheat and corn and oats and rye and the other kinds of food products. So we feel that, unless we can maintain the prices that have prevailed and even get better prices, we do not know what is going to become of the men who are engaged in that line of business in our section of the country.

I do not believe I had better undertake to give you my entire statement of this, but there are some parts of it I would like to present to you, perhaps some of it that Mr. Falvey did not present, and if I should repeat anything you will pardon me, I am sure, because our interests are identical with those of western New York, with perhaps a little exception. We may be able in our section of the country to produce a few pounds more per acre than they are able to produce in western New York, but I am not sure of that. Our land is newer in a way, and possibly some of our vineyards produce a little heavier crop than their vineyards do, at least more than theirs will average; our average, however, will not be better than theirs.

The grape-juice business is not a large business controlled by large capital, the factories being separately owned plants and scattered at different points throughout the various grape belts. It requires to equip and supply in order to successfully operate a grape-juice plant anywhere from $200,000 to $500,000. The business of manufacturing

unfermented grape juice was originally started in a small way in about 1897, grape growing at the time being unprofitable, many vineyards having been set out and grapes selling at from $8 to $10 per ton, which was much less than the cost of raising them.

The growers were encouraged by the Department of Agriculture and the departments of agriculture of the different States to set out more vineyards, and the grape growers relied principally on the grape-juice industry to use the grapes grown. The development and use of grape juice has not been very fast, as the public does not consume sufficient, even during the years when grape juice could be sold for 5 to 10 cents a glass, to use the crop. The Concord grape is the principal one used, other varieties not being suitable.

Senator CALDER. What did you get a ton last year for grapes in Michigan?

Mr. PUGSLEY. You mean in the fall of 1919?

Senator CALDER. Yes.

Mr. PUGSLEY. In our section, in the fall of 1919, we got $80 a ton.

Senator CALDER. Have you figures indicating what the tax of 10 per cent on the product bottled and in cases would make per ton on the grapes?

Mr. PUGSLEY. I do not have it in figures, but I think I have it in mind. Knowing something about what the product from a ton of grapes is, as they told me at the juice factories, I conclude it is something above $30—from $30 to $32 or $33 a ton.

Senator CALDER. Then that would mean if you got $80 per ton for your grapes, $32 would mean about 40 per cent tax on the grapes?

Mr. PUGSLEY. Yes, that is about right; about 40 per cent tax that the juice factories are required to pay—40 per cent as much as they pay us for growing.

Senator CALDER. Do you think that is a fair statement?

Mr. PUGSLEY. That is the way it appeals to us. If I were to go into details and speak of the tax that is levied on the industry, as we see it—because the consuming public are required to pay it in the end, and they are not willing to pay it and the price gets too high——

Senator CALDER (interposing). That is the thing that is worrying you gentlemen. You feel this is getting so high that your product will not be consumed, because compared in price with something else which can be sold cheaper and the public will go to the cheaper article.

Mr. PUGSLEY. That is our position exactly.

Senator CALDER. And you fear it will go so high that the business will be destroyed?

Mr. PUGSLEY. If I had time I would give the figures which the consuming public is paying to the Government for every ton of the grapes that we grow. I think that if you will let me divide my time with Mr. Thornton, I would have him present that particular feature to you.

Senator CALDER. That would cause a glut in the market and thereby cause lower prices to the producer?

Mr. PUGSLEY. It must eventually come back to the producer. We are the fellows who must stand the loss.

Senator CALDER. It would destroy the market?

Mr. PUGSLEY. That is the danger that we see.

The total acreage of Concord grapes in the Chautauqua, Michigan, and Ohio grape belts consist of approximately 90,000 acres; the normal crop being about 200,000 tons. There is not a sufficient market for Concord grapes for table purposes to use the crop. A large percentage of the crop was used heretofore for wine, but this source being eliminated by the prohibition act, the only markets for the grower is for the table and the grape-juice factory.

I was impressed with the thought presented to you a few moments ago that these grape-juice factories are moving over into Canada where they can escape this tax, but they take some of our grapes to ship to the other factories—we do not know just where, but they go from us, and they are manufactured some place else.

Senator SUTHERLAND. Does Canada impose a tax on grapes shipped from this country?

Mr. PUGSLEY. I do not quite understand your question.

Senator SUTHERLANDD. Does Canada impose an import tax on grapes from this country?

Mr. FALVAY. Yes; $13 a ton.

Mr. PUGSLEY. It will be seen by the above figures that the grape growers are largely dependent for the use of their crops on the manufacturers of grapes into grape juice, and if due to the high price, grape juice will not sell, there will be no market for the grapes and this industry which has an investment of about $40,000,000 will become so unprofitable that the growers will pull out their vineyards. This will also seriously affect the entire grape community as most of the banks and business in these sections are dependent upon the grape crop.

For some years after the grape juice industry was commenced they were unable to sell the amount of grape juice that was produced and as a result of it many of the vineyards were taken out, and in the year 1914 when over 3,000,000 gallons were produced and put up, it did not sell and this juice was on hand for some years afterwards, the result showing in the 1915 production.

Senator CALDER. Do you know the value of the output of the factories manufacturing the grape juice last year?

Mr. PUGSLEY. No; I could not give that; there may be some of our associates here who can give that, but I can not do it.

Senator CALDER. I would like to know the quantity of grape juice manufactured and its value.

Mr. FALVAY. About 4,000,000 gallons were made last year; that is, in our section, which does not include the Hudson River belt.

Senator CALDER. Of the entire country?

Mr. FALVAY. That is in the Chautauqua belt alone?

Senator CALDER. You have no idea what it would be for the entire country? Would you say it was 10,000,000 gallons?

Mr. FALVAY. We have eight large factories in the Chicago belt, including Michigan. I should say the Michigan factories press 9,000 tons.

Senator SUTHERLAND. What percentage of your crop last year did you sell in baskets and what percentage to the grape juice factories?

Mr. PUGSLEY. That is a point I am sure the president of our association can answer better than I can, but I would think perhaps one-fourth, maybe a little more than that, perhaps two-fifths of the grapes

of our section went through our association in baskets, either as four-quart or as jumble baskets.

Senator SUTHERLAND. What did they net you a ton?

Mr. PUGSLEY. The 4-quart and jumble netted us more than $80 a ton; in fact, the price that the juice factories paid was regulated by the price we were able to receive through our association for the same kind of grapes put up in baskets, less the cost of putting them in the baskets. That is the deal we had with the juice factories, that they were to pay us on the basis of what we were able to get through the association for the same product, less what it cost to put them up in baskets.

I might say right here that when we left home on Sunday evening that in one of our local juice factories at home the grape juice which had been manufactured was accumulating on the floors there and they were unable to ship it out because they were unable to get the refrigerator cars in which to move it. That condition confronts us and is liable to be still worse as it comes on later and the product has to go into refrigerator cars, if it has to go into baskets, because it then has to be moved in a short time, as the grape perishes in just a few days if it is not taken to the consumer, and if we are not able to get the cars we can not hold them on the cars as they can the grape juice.

There is where we are particularly interested in this line of work, because it does provide a way whereby our product can be held for a little time until we can get the cars in which to move it.

Senator SUTHERLAND. Can you not store your crop in cold storage?

Mr. PUGSLEY. The juice factories have their own cold storage.

Senator SUTHERLAND. I mean, in baskets?

Mr. PUGSLEY. We never do that in our association. We have found that an attempt to do that proves ruinous, if we undertake to do it very long.

These facts illustrate that if grape juice does not sell the growing of grapes will be unprofitable and will result in the destruction of the grape-growing industry.

Grapes are a perishable fruit product that can not be kept for any length of time and as the price of the crop is dependent on the grape-juice factories, if the grape-juice factories can not sell the grape juice, a large portion of the crop will be a loss. The factories take the crop during the three or four weeks of the harvesting season, press them into juice, store the juice in their plants where it is kept for some months before bottling, placing it on the following season. The use of grapes for grape juice saves the product at the time of the year when there would be no other way of disposing of them.

That is one of the things that makes us growers particularly interested in the juice factory, because it does preserve our crop until it can be put on the market.

The building up of the grape-juice business has been a slow and hard undertaking. One of the large concerns is reported to have lost about $1,000,000 trying to make the business profitable, and other factories that did not have the financial backing were at the point of bankruptcy, and the stockholders had to give up their interests in the plants in order to obtain financial backing to continue, the principal trouble being to get large enough distribution.

I would say in reference to the matter of distribution that our Southern Michigan Fruit Association have been in the habit of put-

ting our grapes into almost every State in the Union. We have even sent our product south of Mason and Dixon's line; in some cases away beyond the Rockies; we have sent them into Washington and Oregon, and have even sent them East to compete with our New York brethren, our products crossing each other, and we have a large market in the South, but particularly in the Northwest—Dakota, Montana, Colorado, Nebraska, and Kansas and those States we have looked to for a large portion of our market, but as has been shown you here to-day they are already growing some grapes for themselves in each of those States.

What has been said to you about grape juice in comparison with other beverages I do not think I need to repeat, but the fact that there is a tax as applied to the grape-juice factory not only applies to the grape juice when produced, but it applies to the labor that is put into it in putting it into the bottles; it applies to the glass containers in which the juice is held until it has ripened and settled, so that it will be absolutely pure when drawn off into the small bottles; and, by the way, they allow 10 per cent for shrinkage. It is calculated that when put into the large glass containers there will be a shrinkage of 10 per cent, which is waste, that is not fit to go into what is termed pure juice, that goes off into the small bottles, but they are taxed on that, the glass and the small bottles, and the case.

Senator SUTHERLAND. Is there no use whatever for that residue?

Mr. PUGSLEY. I do not know of any. I could not answer that from the juice man's standpoint. I do not know whether either of our colleagues can answer that.

Senator CALDER. Do the bottles come back?

Mr. PUGSLEY. They do not, as I understand it.

We have gone into this business because our soil is better adapted to the culture, and we occupy an elevation where we are practically free from frost. We all get frost occasionally, but the man whose land occupies a depression where his crops are not exempt from frost, if he gets a frost one year out of three, his business is destroyed. But if we can go along, as we happen to who have appeared here to-day, as our vineyards are upon higher ground, and we can get some crops in the years when the fellow on the lower land fails, we are able to continue in the business. But the fellow who loses a crop one year out of three has got to seek some other occupation. I could cite you to ever so many vineyards within 3 miles of my home that were started on land that produced more wheat, corn, oats, potatoes, and the ordinary crops than we are able to produce on our land, but they had to pull out their grapes because they found too often they were knocked out of the business because of the frost.

When grape juice is consumed at the fountain, it is generally reduced by one-half to two-thirds water or carbonated soda, and it is the only fruit sirup that is reduced at the fountain with water or carbonated soda and that is taxed as sold by the manufacturer, strawberry sirup, chocolate sirup, coco-cola sirup, pineapple sirup, locanberry sirup, vanilla sirup, lemon sirup, and all of this class of sirups not being taxed as sold.

Due largely to the tax and the increased cost of labor and supplies, a small glass of grape juice must now retail at 20 cents. In order to produce it, we must have the vineyards and the grape juice factories. It is obliged to compete with the synthetic drinks, which

can be manufactured by anyone who can buy the supplies necessary to make up their compound and which can be produced at a cost much less than the tax we are obliged to pay and sell at from 5 to 10 cents a glass.

We are reliably informed that as a result of the high cost of grape juice the wholesalers and retailers who distribute grape juice have canceled orders for hundreds of thousands of cases during the past few months, and that last year's production will not be consumed by the consuming public this year. That is the information we have received. It is something we can not get at or receive any positive statement, because I do not know how many cancellations each one of us have had. We learn this from the grape juice men, that along towards the 1st of August they expect to not only invoice what they have on hand, but they expect to invoice what they have in the jobbers' hands and find out how much there is here and there throughout the country, so that they may know something about what they are in shape to do with next fall's crop. They may be obliged to come down on the price to us as growers, so it will compel us to go to some other lines for a livelihood. I hope not.

With this situation, which now confronts us, unless the cost of grape juice can be reduced, there will be no market for the future crops of grapes. Grapes can not be kept any length of time and it will result in the crop being sold at prices much less than the cost of production. People will not buy grape juice at 20 cents a glass when they can buy other fruit-juice drinks and sirups at from 5 to 10 cents a glass.

If the factories engaged in the manufacture of grape juice find they can not market same due to its high cost, they will convert their plants into other fruit-juice industries that can be sold without paying any tax. If it is the intent of Congress to single out this particular industry for this 10 per cent tax and not tax other fruit sirups, and the cost of grape juice is so high that it can not be sold, that will be their only alternative.

The law of supply and demand is regulated by the price at which an article can be sold and compete with other products of a similar character, and if the grape-juice manufacturers can not sell grape juice due to this tax and high cost, the grower, in order to sell his grapes, must sell at prices of other products which can compete, and to do this they will be obliged to sell grapes at less than their cost to produce them.

Other products sold are not taxed in this way and we felt that a great injustice is being done to the grape growers, and can not understand why loganberry sirup, pineapple sirup, strawberry sirup, chocolate sirup, vanila sirup, lemon sirup, and all this class of sirups should not pay the 10 per cent tax if the grape juice is required to pay it. They are all served in the same manner by using a portion of the juice and adding water or carbonated soda. The manufacture and sale of grape juice should be encouraged. It is a food product, beneficial to health. It is not composed of substances that are injurious to the health as are many synthetic drinks.

Prohibition has not been of any benefit to the grape-juice business, as the elimination of alcoholic drinks has resulted in many breweries converting their plants into soft-drink plants, and most of these beverages are put on the market and sold to the consumer at 20 to 50 per cent of the cost of grape juice.

The tax discriminates against grape juice as compared with most other soft drinks, as grape juice, in order to be kept unfermented and nonalcoholic, must be put up in sealed containers. In order to get distribution, the goods are shipped all over the United States. The manufacturers are taxed on the containers, which tax on containers, freight, labor, etc., is more than the tax on the juice itself.

The other fruit sirups and soft drinks manufacturers are able to deliver their products from small plants situated near the point of distribution, take back the cases and bottles and therefore are not obliged to be taxed on the same. The grape-juice bottles, cases, etc., can not be taken back as the freight from the different points in the United States would exceed their value so that in this particular industry the Government obtains a tax on all its supplies, and on its competing industries no tax.

Grape juice pays three taxes. Most of its competing products pay only one. Grape juice pays, first, tax of 10 per cent on the grape juice itself; second, tax of 10 per cent on labor, freight, cases, bottles, caps, labels, and cost of sale; and third, a beverage tax of 10 per cent at the fountain.

Other fruit sirups pay a tax of 10 per cent at the fountain and as other products are sold at from 5 to 10 cents, pay only 1 cent tax at the fountain, whereas grape juice must pay from 2 to 3 cents.

The manufacturers of other fruit sirups which are served in identically the same manner pay no tax on their selling price and the products pay only one tax of 10 per cent at the fountain where it is sold.

Grape juice is rarely ever used in its natural form, it being too heavy and strong for a beverage and is practically always reduced by one-half or two-thirds of water or carbonated soda so that in the manner of its use it is used in identically the same way as loganberry juice or fountain sirups made from other fruit juices, chocolate, vanilla and other flavors.

Loganberry juice in its natural state was originally taxed but on the matter being taken up by the Loganberry Co. the tax was refunded and they are not obliged to pay any tax on the loganberry juice when sold in its natural state without reducing. Grape juice which is served in identically the same manner as loganberry juice by diluting with water or carbonated soda must pay the tax. This enables one class of fruit product which does not require near the investment in vineyards, or the years to produce the vineyards, to have an advantage over the grape growers. None of the other sirups that are served in identically the same manner are taxed when sold as is grape juice.

Why this discrimination is hard to understand by the grape growers.

I do not think there is anything more of any importance I desire to say except that I agree with what Mr. Falvey has told you.

Mr. REED. We will have to hurry this along a little bit, and I will now introduce Mr. Johnson, the president of the National Grape Growers' Association, of Ohio, who will have just a few words to say. I do not want to foreclose anybody, but we have only 15 minutes left.

STATEMENT OF MR. O. W. JOHNSON, PRESIDENT GRAND RIVER FRUIT GROWERS' ASSOCIATION, GENEVA, OHIO, AND PRESIDENT THE NATIONAL GRAPE GROWERS' ASSOCIATION.

Senator CALDER. Please state your full name and address to the reporter?

Mr. JOHNSON. O. W. Johnson, Geneva, Ohio, rural route No. 3.

Senator CALDER. Please state what interests you are representing?

Mr. JOHNSON. I represent the Grand River Fruit Growers' Association and also an organization that was just created January 1, 1920, in an endeavor to gather within its association all the associations of Concord grape growers in the United States.

Senator SUTHERLAND. What is the name of the association?

Mr. JOHNSON. The National Grape Growers' Association and our aim and effort is the organization of all the grape growers in Ohio, on Lake Erie and in New York State, and an effort will be made to combine them all later on. The effort of that association is to organize it as the large interests.

Senator SUTHERLAND. Will your association include Michigan?

Mr. JOHNSON. Our association includes all the Concord grape growers. Now, I will undertake to detail to you why we grape growers of Ohio are opposed to the 10 per cent tax on grape products.

Ohio produced in the Lake Erie districts over 19,000,000 pounds of grapes during the season of 1919.

The wine trade has been our sole consumer up to 1920. We used no other.

In dealing with the wine trade we used the cheapest basket known for the purpose, it not only cost us less money per ton, loaded, but could be used over again for one or two seasons in succession.

With it we could load with less care and consequently less cost per ton. They cost us but 55 cents per dozen or about $9.90 per ton capacity. We got them from our local factories delivered at our vineyards at that price.

The wine trade took our crop as vineyard run leaving no culls or graded fruit.

Picking the crop was easy and required no experienced persons. Anyone could pick that was old enough.

It required no other care in placing the grapes in the basket than simply putting it inside in some way.

Retainers could be old, partly broken, and of any size, or shape, but not smaller than 18 pounds capacity, usually holding 20 pounds each.

We could haul to loading station in large quantities, two and one-half tons often being the net weight of a load, using any kind of a vehicle, usually a farm wagon with hay racks. Mashing or mishandling being of no serious financial loss.

The buyers came to our vineyards, contracted our entire crop f. o. b. cars loading station, with no grading, no inspection, no rejection and no delays.

Prohibition enforcement has closed this trade to us and completely changed our mode of operations.

We are now face to face with the alternative of abandoning our vineyards, or going to great expense in finding and preparing a new market and obtaining new and more expensive retainers for shipping.

Equip with specially constructed vehicles to haul to car with.

We are compelled to open up expensive advertising campaigns in order to develop new markets large enough to absorb our output.

The sweet juice trade seems to be our best outlook, but the handicap in their case of careful, graded picking, packing, and using special containers confronts us with a very greatly increased cost of production.

In addition to this the added cost is the total loss of the culls, the sweet-juice plants can not use, since the wine trade ceased to consume them.

To sell to the sweet-juice trade we are compelled to provide a noncrushable container at a greatly increased cost over those previously used.

We will be compelled to hire at extremely high wages skilled pickers that can pick and pack in the proper manner so the grapes will not be crushed in transit.

We will have to ice the cars for long transits.

By using the special retainer and employing greater care in loading we will have to use more cars to roll a given output of grapes, thereby compelling us to pay greater freight rates on a given output than formerly, as the retainers we will have to use are much heavier than those used in the past, thus increasing the dead-weight tonnage by at least 100 per cent.

As above noted the old retainers now cost us $45.83 per thousand, while the new retainer in our last quotations will cost over $100 per thousand and hard to get.

In addition to all of this our overhead expenses, charges for trimmers, pickers, and tyers, all have advanced from 50 to 100 per cent, while fertilizers are very much increased in price.

In 1918 the cost of producing 1 acre of grapes was some over $100 per acre. The Dover association's appraisal committee found the cost of production for 1919 to be some over $117 per acre.

And last but not least, I understand all cars must be iced, fixed charges are made for the same by the roads, and all freight rates are to be increased over 1919 rates.

Now, gentlemen, with this 10 per cent tax added to the increased cost per ton of our product we feel that the limit has been reached.

If we can not raise grapes at a reasonable profit over cost, we do not care to continue on in the business.

At this very moment we absolutely do not know what we are going to do with Ohio's 1920 crop of grapes, what we are going to get for them, of what the cost of finding a market and supplying that market will be when found.

But the peculiar conditions surrounding food production and grapes in particular make it the greatest risk in the business world of to-day. We are compelled to go on with the cost of care, cultivation, fertilization, spraying, improving, repairing, etc., regardless of the outcome.

Frankly, gentlemen, we are very much discouraged over the outlook.

This excessive tax on the grape product in the end reflects on us growers by reduced tonnage prices which points to a further reduction in the receipts we are likely to receive.

We respectfully request on behalf of the Ohio growers that you remove one of those serious handicaps by reducing this tax of 10 per cent.

Representative REED. Mr. Chairman, the next speaker I wish to introduce is Mr. W. Y. Velie, president of the Hudson River Fruit Exchange; also representing the Germantown Fruit Growers' Association, Germantown, Columbia County, N. Y.

Senator SUTHERLAND. We shall be glad to hear him. Mr. Velie, please step forward and give your full name and address to the reporter.

STATEMENT OF W. Y. VELIE, PRESIDENT HUDSON RIVER FRUIT EXCHANGE; ALSO REPRESENTING THE GERMANTOWN FRUIT GROWERS' ASSOCIATION, COLUMBIA COUNTY, N. Y.

Mr. VELIE. William Y. Velie, Marlboro, N. Y.

Senator SUTHERLAND. Please state whom you are representing.

Mr. VELIE. I am the president of the Hudson River Fruit Exchange, and also represent the Germantown Fruit Growers' Association, Germantown, Columbia County, N. Y.

Mr. Chairman, the general situation and conditions of the grape-growing industry have been so thoroughly gone over by the gentlemen who preceded me that I will not stop to add to it; I do not know that I could, but just a few words with reference to what was our principal industry for years in the Hudson River section.

I am quite proud to say that that was the birthplace of the industry, and it is an industry, as I said before, that is not incorporated in any way but is composed of a number of individual small farmers, some having 1 acre, and a few up possibly to 100 acres, although in our vicinity 50 acres is the limit. When people are engaged in an industry of that kind it cuts them to the heart, after a number of years, to have a matter of this kind confront them.

The grape growers of central and western New York State have seen the increase in the production of grapes which has been alarming, but the most of our grapes have been marketed in New York City, where the grapes are absorbed as a table grape; as the cost of producing and marketing increased we looked for another market with less outlay and then the wine industry—what we call the sour-wine industry—came up.

Individuals came and bought little farms and squeezed grapes to make sour wine and as time went on the output of sour wine increased until at the present time the status of the situation in our locality is this: That we raise about 12,000 tons of grapes, and in the last few years a grape juice factory was erected and went through the process of reorganization and——

Senator CALDER (interposing). What proportion of Hudson River production went into the manufacture of wine?

Mr. VELIE. I was just coming to that, Senator. I think we might get down to last year's figures. I will say that it was equally divided between grapes that we shipped for table use with the grape-juice factory and sour wine.

Senator SUTHERLAND. About one-third each?

Mr. VELIE. Yes, sir; about one-third each.

Senator CALDER. So that you lost one-third of your market?

Mr. VELIE. No, sir; we lost two-thirds of our market. Or rather we have lost one-third and the other third is on the balance. We have got to eliminate the sour-wine outlet and depend entirely on the grape-juice outlet and the table-grape outlet. If we lose the grape-juice outlet and the entire crop is thrown on the table-grape market the market will be so swamped that the price will go so far below the cost of production and marketing that we simply will be forced out of it. I was talking with the manager of the New York Grape Juice Association, and he was very optimistic last fall, but with the increased price of all their containers and high cost of labor the sale of the grape juice lessened and was very much below what they expected in the fall; and it requires a great deal of advertising and salesmanship to put their goods on the market and the demand has depreciated to such an extent at the present time that fear is now entertained that they can not get rid of the grape juice.

There will be no hope for the grape growers if this law is not repealed. I will not take your time any further, but urge you to give it your earnest consideration and help us out of this unfortunate situation.

Representative REED. Mr. Chairman, we only have three more speakers. I will now call on Mr. D. L. Thornton, president of the Southern Michigan association.

Senator CALDER. Mr. Thornton, will you please give your name to the reporter?

STATEMENT OF MR. D. L. THORNTON, PRESIDENT OF THE SOUTHERN MICHIGAN FRUIT ASSOCIATION.

Mr. THORNTON. My name is D. L. Thornton, and I am the president of the Southern Michigan Fruit Association.

Mr. Chairman and gentlemen, just a moment, please; this subject has been considered so far from a practical standpoint, and I will forget everything that I have thought about and just mention one, and that is that in these affairs of life we are apt to overlook the real things of worth. The real things of worth are too often discriminated against, and we feel that—as grape growers—this is true, practically true, so far as grape juice is concerned. It is something that is really of worth. It is a health-giving beverage. It has gone into the market solely on its merits, and we are here and able to talk to you to-day and present this grape-juice problem to you simply because we have got something of worth to talk about.

Now, the grape juice is highly in favor with the hospitals as well as the homes. It is prescribed by all the leading physicians, and I know—I met with a misfortune myself—I lost a grandson. I know we consumed about 12 or 13 quarts of grape juice, so prescribed, happened to have it in the home; and I feel, and I am sure that we all feel that from this standpoint alone that it is up to you for consideration as something of value and for the value it has as a food and health producer. It is exceedingly unfortunate that there is any discrimination at this time by reason of the country entering into nation-wide prohibition. Upon the other hand, the grape-juice production should have been stimulated, and it should have been promoted as a national beverage, and it would have been a great factor in acquiring

and helping to create a taste for a health-producing beverage, for the matter of taste is merely a matter of education. We have to look for a substitute for a depraved taste and something better, and we have nothing better than grape juice, and it is so used and so consumed by all the best people.

Now there is a little item here that we figured on coming over on the train. The soda fountain tax is 10 per cent; there are 16 ounces in a pint; so that a 10 per cent tax would mean 16 cents tax per pint. If you go to a soda fountain and buy a drink of grape juice you would get about an ounce to a drink, the rest being filled up with carbonated soda, etc. You consumed about 1 ounce of grape juice and there are 16 ounces to the pint of grape juice. This would make the soda fountain tax 32 cents a quart and 4 quarts to a gallon would make $1.24 a gallon. I have figured here 157 gallons to the ton, which makes a tax of $200.96. The figure of 157 gallons to the ton, that is an estimate of other gentlemen—there is a certain shrinkage. To the above figure you must add the tax of 10 per cent on the grape juice itself and the tax of 10 per cent on labor, containers, etc., which amounts to $28. The total tax on 1 ton of grape juice is $228.96, which the consumer is paying in actual tax on grape juice as consumed over the soda fountain. That is all I have to say, gentlemen.

STATEMENT OF MR. C. I. STAINTON, OF THE SOUTHERN MICHIGAN FRUIT GROWERS' ASSOCIATION.

Mr. STAINTON (interposing). Mr. Chairman, in answer to the question of the Senator asked awhile ago for the amount of grapes being produced in the different localities, I wish to state that in our Michigan belt there were last year approximately 13,500 tons sold at a price of $80 a ton, which will give a total price of $1,080,000.

Representative REED. Mr. Chairman, the next speaker is Mr. G. E. Pierce, of North East, Pa.

Senator CALDER. Mr. Pierce, will you please step forward and give your name to the reporter.

STATEMENT OF MR. G. E. PIERCE, NORTH EAST, PA., GRAPE GROWER AND SHIPPER.

Mr. PIERCE. My name is George E. Pierce and my home is at North East, Pa. I am a grape grower and shipper.

Mr. Chairman and gentlemen, I came here without any data as I did not start from my home; therefore I am entirely prevented from giving you the exact figures.

The production of grapes, the cost of production, the cost of grape juice, and the tax on the grape juice have been pretty thoroughly gone over. It is not necessary for me to add anything to that. I would like to give you, though, some idea of the marketing of the grapes during the history of the grape business in our section.

I represent the growers of Erie County, Pa., which is identical with Chautauqua County, N. Y., and they are adjacent. I have been a grower since 1886, beginning about the time that the grape industry began to assume commercial importance. There were grapes, you know, previous to that, in a small way, but about that time grapes began to be planted in commercial quantities. At that time the soil

was virgin soil, and the soil, by the way, is not a rich soil. We brag more on our climate and on our proximity to the Lakes and our freeness from frost, both in the spring and the fall, than we do on the worth of our soil.

While it is not a rich soil, it is not adapted to the growing of fine crops profitably under the present conditions. We can not pay our help and raise ordinary fine crops such as corn, wheat, oats, etc., and therefore we are dependent on grapes and other small fruits—principally grapes. About from 1886 to 1890 we shipped the grapes entirely as table grapes. We catered to the table-grape trade. At that time, as you know, help was very plentiful and very cheap. We paid our men by the day, about $1, some 75 cents; and at that time we shipped our grapes in 10-pound "climax" vessels and received about 27 cents per basket. The acreage and the crops increased very perceptibly until about 1900, and then the prices diminished. I believe that the lowest price was in 1897. At that time grapes brought on an average of 6 cents for a 9-pound basket. We gradually reduced the size of the basket from 10 pounds to 9 pounds; and about that year—I would not say whether it was that year or 1897 or 1898—we received that average price of 6 cents; and many farmers, tenant farmers, were obliged to pick the landlord's share at a loss, and they would have done better to have left the grapes on the vines, because they did not get much for them.

In 1900 we had about 8,000 tons and about that time the prices began to be a little higher, perhaps 8 or 10 cents a basket; and about that time grapes began to be used for wine purposes and for grape-juice purposes, and sold the first year at from $8 to $10 a ton—so, you can imagine the condition of the grape industry at that time. It was at a very low ebb. You can understand that practically all of the grapes were shipped as table grapes. At that time, on the westbound shipments the railroads gave us third-class freight, and, as you know, the rate at that time was much lower than it is now; and I remember distinctly one fall the grapes froze and they thought they would not be able to move them, and the railroads gave us the rate of fifth-class freight west—they were under a different classification. At that time we had practically all of the United States as ours for a market. We shipped table grapes as far west as Seattle; and shipments to Denver and points in Nebraska, Minnesota, Wisconsin, and Montana were heavy. The fact is, that one of my best customers for table grapes was in Sioux City, which is, as you know, quite a ways west. At that time Michigan was producing practically no grapes, but as the Michigan grape yield increased and grapes from other sections began to be more plentiful, our trade on table grapes diminished, and gradually diminished, until in 1919 about 2 per cent of our grapes were shipped as table grapes. So it leaves us to depend practically entirely on the wine-grape trade and on the grape-juice trade for our shipments and for our sales——

Senator CALDER (interposing). There will be no wine trade.

Mr. PIERCE. I meant up to the present time, but now we are practically dependent on the grape-juice people for our market and profit and I can see no way of ever getting back the table grape market. We have diminished that until now it is practically nil.

Senator CALDER. Do you not manufacture your grape juice on the ground?

Mr. PIERCE. Yes, the grape juice is manufactured on the ground and it is impossible for us to market our grapes as table grapes for—in the first place there is a scarcity of help. You understand, as was explained by one of the gentlemen previously, that for our wine grapes and for grape juice the grapes are picked carelessly and nearly all the vineyards in our part of the country have no waste. They are put in large baskets for wine purposes and in trays furnished by the grape-juice people for their purpose, and practically all of the grapes go in without any sorting, so that handwork is almost unknown except for table grape purposes. Besides this, taking our crop of 1919 as a basis, which is practically 5,000 cars, if we were to put all our grapes up as table grapes, which are now put in a 4-quart basket, it would be practically 400 baskets to the ton, and estimating our yield at 5,000 cars, which is 50,000 tons, we would have to have 20,000,000 baskets. Now where those 20,000,000 baskets would come from is more than I can see. One of the other gentlemen has told you about the cost of that. We used to get them as low as $15, $16 and $17 a thousand. This year, as I understand it, although I have not been at home for two or three months, I know that the baskets are very scarce and as I understand it, the manufacturers have not made a specified price, but it will be around $45 a thousand, if they are available.

Besides these difficulties in shipping table grapes we have the icing proposition, which is expensive, and last year we were unable to get ice at all as our community and locality would not support artificial ice and there was no natural ice available.

Besides these grapes are extremely perishable and have to be moved in a very short time, practically four weeks, probably five weeks on the earliest, but the packing condition would have to be four weeks. In many cases we are unable to get the car supply; the transportation as you know is in bad condition and available refrigerators are not there; and in shipping for grape juice purposes they can be shipped in box cars because where they are shipped at all the haul is very short, and in many cases they are hauled to the grape juice plant in wagons so that it eliminates the transportion difficulties.

The profits of the vineyards for the last few years have not been sufficient to maintain the fertility of the soil and to keep it in such condition to maintain the quantity of grapes produced.

As I told you, in 1900 we shipped about 8,000 cars. In 1918 there were grown about 2,100 cars and in 1919 we thought we had a pretty good crop and we had 4,900 cars, so that you see can that the production of the grape is on the wane and largely from the fact that the vineyards have not been kept up.

Senator CALDER. Mr. Pierce, do you know the total value of the grapes produced in this country last year?

Mr. PIERCE. I do not.

Senator CALDER. Do you know the total value of the grapes that went into the manufacture of grape juice?

Mr. PIERCE. I could not say. I am not posted on the grape-juice business and do not pretend to know anything about it except that I know about the quantity that they manufactured in my district.

Senator CALDER. Then you do not know the value of the grape-juice output?

Mr. PIERCE. I do not know. I am not familiar with the grape-juice business. But I do know this, that the price paid by the grape-

juice industry is very dependent upon the price that we are able to get outside. For instance, last year there was a big demand for wine purposes and the price was good and their price was based on what we could get outside so that if we do not have a market outside we can expect a very low rate from the grape-juice people. I do not know that there is anything else that I can say that would add to this.

If there are any questions that you wish to ask me; that is, in my line, I will be glad to answer them.

STATEMENT OF MR. S. F. NIXON, SECRETARY OF THE CHAUTAUQUA AND LAKE ERIE FRUIT GROWERS' ASSOCIATION.

Senator CALDER. Please state your name and residence to the reporter.

Mr. NIXON. S. F. Nixon, Westfield, Chautauqua County, N. Y.

Senator CALDER. What is your business?

Mr. NIXON. I am engaged in grape farming and I am the secretary of the Chautauqua and Lake Erie Fruit Growers' Association.

This is a brief respectfully submitted to a committee composed of Senator Calder of the State of New York, Senator Gore of the State of Oklahoma, and Senator McLean of the State of Connecticut, conferring with representatives of the grape growers to consider the advisability of abandoning the Federal tax of 10 per cent on grape juice.

The representatives of the Chautauqua and Lake Erie belt have been sent to Washington to confer with this committee and their expenses are being paid by a subscription of 10 cents an acre raised by the grape growers of the Chautauqua and Lake Erie belt.

The purpose of the grape growers is to show:

First. That the present net profit on the grapes produced on an acre is so small that the grapes can not be sold for less than they have been sold for for the last five years.

Second. That the majority of grapes raised are used in the manufacture of grape juice, which is the pure juice of the grape.

Third. That the Federal 10 per cent tax on grape juice amounts to more than $30 for a ton of grapes and that its addition to the price of grape juice necessitates such a high price for grape juice that it can not compete in the open market with other soft drinks.

Fourth. That any falling off in the sale of grape juice further injures the market for grapes, already greatly injured by prohibition, with the result that there will be no market for the sale of grapes during the coming year or for years to come.

The purpose of this brief is to show the actual cost of producing grapes:

First. By giving the actual cost of operation on three vineyards about 15 miles apart situated in the Chautauqua and Lake Erie fruit belt, for a period of five years.

Second. By showing the average tonnage of grapes for the belt.

Third. Showing the average price per ton received by the grape growers in the belt.

Fourth. Showing the average net loss or gain on an acre of grapes owned by the grape growers of the fruit belt.

Here follows an itemized statement of the cost of each operation in three vineyards for the years 1915 to 1919, inclusive. It does not, however, include a reasonable depreciation on tools and equipment used in the vineyard operations. Otherwise, we believe it to be complete in every detail.

(The table costs of the three vineyards above referred to by the witness, are here printed in the record, as follows:)

Costs in 3 vineyards for the 5-year period 1915–1919, inclusive, and the 5-year average.

8-ACRE VINEYARD R.

	1915	1916	1917	1918	1919	5-year average.
Interest on investment	$144.00	$144.00	$144.00	$144.00	$144.00	$144.00
Taxes and insurance	22.23	30.41	36.88	36.88	36.88	32.66
Fertilizer, manure, lime	[illegible]	37.23	55.00	21.70	68.00	50.45
Posts, wire, wire ties, tools, staples, twine, etc	[illegible]	[illegible]	13.15	31.41	17.81	19.70
Green manure seed	[illegible]	[illegible]	.....	10.45	15.00	5.67
Spray materials	[illegible]	[illegible]	.....	7.50	7.25	6.41
Vine replacement	[illegible]	[illegible]	6.75	6.75	14.00	7.45
Total maintenance expenses	[illegible]	[illegible]	[illegible]	261.69	302.94	266.47
Pruning	[illegible]	[illegible]	[illegible]	31.50	35.00	28.01
Brush disposal, pulling, poling, and burning	[illegible]	[illegible]	[illegible]	34.20	26.00	23.57
Trellis repair, driving posts, fixing braces, and stretching wire	[illegible]	[illegible]	[illegible]	24.60	46.00	24.30
Tying	[illegible]	[illegible]	[illegible]	21.60	29.63	17.49
Plowing, orchard horse	[illegible]	[illegible]	.....	20.80	10.80	6.43
Plowing	[illegible]	9.50	[illegible]	12.00	12.00	9.20
Horse hoeing	[illegible]	11.20	[illegible]	25.60	24.00	12.71
Hand hoeing	[illegible]	4.80	[illegible]	27.80	43.20	17.28
Harrowing	[illegible]	52.00	[illegible]	49.80	44.00	48.27
Clipping	[illegible]	2.75	[illegible]	3.30	4.00	3.02
Summer pruning	[illegible]	3.55	.....	6.00	.....	4.06
Spraying	[illegible]	[illegible]	[illegible]	11.00	8.00	7.67
Green manuring	[illegible]	[illegible]	[illegible]	1.50	2.00	1.10
Miscellaneous, including tucking	10.00	[illegible]	[illegible]	6.00	.....	10.70
Total labor expenses	80.47	169.05	[illegible]	254.70	284.63	213.79
Total	93.93	389.[illegible]	[illegible]	516.39	587.57	480.25
Harvesting, containers, and cartage	10.95	[illegible]	90	118.80	235.78	146.64
Total cost of production	[illegible]	[illegible]	584.78	635.19	823.35	626.87
Total cost per acre	[illegible]	50.78	73.09	79.40	103.00	78.37
Average price received per ton	[illegible]	50.63	42.08	112.00	95.00	67.64
Average amount received per acre by grower	73.15	55.69	54.70	64.96	123.50	82.19
Net loss or gain per acre	2.45	5.09	18.39	14.44	[1] 20.50	[1] 3.82
Average tons per acre for district	1.90	1.10	1.30	.58	1.30	1.23

20-ACRE VINEYARD E.

Interest on investment	$360.00	$360.00	$360.00	$360.00	$360.00	$360.00
Taxes and insurance	15.00	19.50	19.50	19.50	27.50	20.20
Fertilizer, manure, lime	39.86	94.23	123.00	213.00	161.00	126.30
Posts, wiers, wire ties, tools, staples, twine, etc	13.90	26.68	68.43	20.18	10.25	27.69
Green manure seed	.....	16.05	33.00	114.00	31.20	38.85
Spray materials	25.68	19.50	24.00	.....	15.50	16.94
Vines for replacement	2.10	.....	15	.....	.....	1.15
Total maintenance expenses	426.54	535.96	631.58	727.08	605.45	585.32
Pruning	51.52	70.50	65.20	81.00	75.60	68.76
Brush disposal, pulling, poling, and burning	29.82	31.70	25.10	22.50	33.01	28.43
Trellis, repair, driving posts, fixing braces, and stretching wire	20.84	29.00	49.60	14.40	34.80	29.73

[1] Gain.

Costs in 3 vineyards for the 5-year period 1915–1919, inclusive, and the 5-year average—Continued.

20-ACRE VINEYARD E.—Continued.

	1915	1916	1917	1918	1919	5-year average.
Tying	$26.40	$33.40	$31.60	$32.00	$41.00	$32.88
Plowing, single-horse	.....	8.58	.....	16.20	.....	4.96
Plowing, team and tractor	50.20	35.13	19.50	40.80	53.20	39.77
Horseshoeing	10.68	28.53	.....	42.75	.....	16.39
Hand hoeing	11.00	14.30	1.40	43.20	.....	13.98
Harrowing and disking	30.40	29.75	60.00	105.00	101.50	65.33
Spraying labor	10.20	17.50	17.00	.....	45.50	18.04
Applying fertilizer	10.00	11.25	16.75	18.30	7.00	12.66
Green manure seeding	.....	7.88	23.70	17.40	7.00	11.20
Miscellaneous, suckering, mowing weeds, etc	23.68	19.50	3.40	.....	13.90	12.10
Total labor expense	274.74	337.02	313.25	433.55	412.51	354.21
Total upkeep expense	701.28	872.98	944.83	1,160.63	1,017.96	939.54
Harvesting, picking, horse and team work	260.00	342.38	172.90	198.40	341.98	263.15
Total cost of production	961.28	1,215.36	1,117.73	1,359.03	1,359.94	1,202.67
Total cost per acre	49.54	60.76	55.88	67.93	68.01	60.42
Average price received per ton	29.50	49.66	42.00	112.00	99.25	66.48
Average amount received per acre by grower	56.05	54.62	54.60	64.96	129.02	81.77
Loss or gain per acre	[1] 6.51	6.14	1.28	2.97	[1] 61.01	[1] 21.35
Average tons per acre per district	1.90	1.10	1.30	.58	1.30	1.23
Man-hours till harvest	866.50	1,055.00	816.00	909.50	739.50	881.30
Woman-hours till harvest	176.00	167.00	158.00	160.00	161.00	165.00
Horse-hours till harvest	500.10	475.50	336.00	666.00	431.00	481.70
Tractor-hours	.....	30.50	76.00	32.00	54.50	38.60

6-ACRE VINEYARD S.

Interest on investment	$108.00	$108.00	$108.00	$108.00	$108.00	$108.00
Taxes and insurance	18.00	19.86	20.70	22.92	27.90	21.88
Fertilizer	67.86	88.56	88.44	107.04	114.96	93.37
Posts, wire, wire ties, tools, staples, twine, etc	18.00	21.60	22.80	12.00	11.25	17.13
Green manure seed	15.12	3.46	13.50	18.00	24.42	14.90
Spray materials	9.30	6.00	6.00	16.02	.....	7.45
Total maintenance expense	236.28	247.48	259.44	283.98	286.53	262.74
Pruning	17.88	15.42	20.46	36.00	37.80	25.51
Brush disposal, pulling, poling, and burning	5.94	12.06	12.18	10.80	11.25	10.45
Trellis repair, driving posts, fixing braces, and stretching wire	12.78	11.04	9.96	11.72	20.10	13.12
Tying, spring	3.90	6.84	7.38	11.88	12.67	8.50
Plowing, single horse	4.56	18.00	3.12	16.68	12.24	10.92
Plowing, team	6.48	6.42	4.98	6.78	7.80	6.49
Horse hoeing	8.04	8.64	7.44	13.98	6.54	8.93
Hand hoeing	6.72	6.06	5.52	8.28	10.16	7.35
Harrowing and disking	35.52	22.68	24.18	26.22	19.48	25.62
Clipping tops	.96	1.20	1.50	1.50	1.79	1.39
Summer tying	3.36	.60	.96	4.26	2.72	2.38
Spraying labor	6.54	5.22	5.88	6.54	.....	4.84
Green-manuring labor	2.10	1.26	6.36	3.84	3.30	3.37
Miscellaneous, suckering, mowing weeds, etc	.....	8.46	.....	.....	.....	1.69
Total labor expense	114.78	123.99	109.92	158.48	145.85	130.60
Total upkeep expense	351.06	371.38	369.36	442.46	432.38	393.33
Harvesting, labor, picking, horse and team work	144.36	63.90	109.32	50.46	161.88	105.98
Total cost of production	495.42	435.28	478.68	492.92	594.26	499.31
Total cost per acre	82.57	72.55	79.78	82.15	99.05	83.22
Average price received per ton	30.00	49.66	42.00	112.00	99.25	66.58
Average amount received per acre by grower	57.00	54.62	54.60	64.92	129.02	81.89
Loss or gain per acre	25.57	17.93	25.18	17.19	[1] 29.97	1.33

[1] Gain.

Costs in 3 vineyards for the 5-year period 1915-1919, inclusive, and the 5-year average— Continued.

6-ACRE VINEYARD S.—Continued.

	1915	1916	1917	1918	1919	5-year average.
Man-hours till harvest	$368.20	$413.50	$362 47	$112 62	$351.68	$328.27
Woman-hours till harvest	13 00	39.10	55.60	51.00	54.36	42.61
Horse-hours till harvest	217.70	220.68	193.91	249.02	165.84	217.23
Average tons per acre for district	1.90	1.10	1.30	.58	1.30	1.24
VINEYARD S, PER ACRE.						
Interest on investment	$18.00	$18.00	$18.00	$18.00	$18.00	$18.00
Taxes and insurance	3.00	3.31	3.45	3.82	4.65	3.65
Fertilizer	11.31	14.76	14.74	17.84	19.16	15.56
Posts, wire, wire ties, tools, staples, twine, etc	3.00	3.60	3.80	2.00	1.875	2.46
Green manure seed	2.52	.575	2.25	3.00	4.07	2.483
Spray materials	1.55	1.00	1.00	2.67	.....	1.244
Total maintenance expense	39.38	41.215	43.24	47.33	47.755	43.397
Pruning	2.98	2.57	3.41	6.00	6.30	4.25
Brush disposal, pulling, poling, and burning	.99	2.01	2.03	1.80	1.88	1.74
Trellis repair, driving posts, fixing braces, and stretching wire	2.13	1.88	1.66	1.95	3.35	2.19
Tying, spring	.65	1.14	1.23	1.98	2.12	1.42
Plowing, single-horse	.76	3.00	.52	2.78	2.01	1.82
Plowing, team	1.08	1.07	.83	1.13	1.30	1.08
Horse hoeing	1.34	1.44	1.21	2.33	1.09	1.49
Hand hoeing	1.12	1.01	.92	1.38	1.69	1.22
Harrowing and disking	5.02	3.78	4.03	4.37	3.25	4.27
Clipping tops	.16	.20	.25	.25	.208	.23
Summer tying	.56	.10	.16	.71	.153	.306
Spraying labor	1.09	.87	.98	1.09	.....	.81
Green manuring labor	.35	.21	1.06	.61	.55	.56
Miscellaneous	.....	1.11	.....	.....	.....	.28
Total labor expense	19.31	20.65	18.32	26.41	21.321	21.756
Total upkeep expense	58.51	61.99	61.56	73.74	72.076	65.55
Harvesting, picking, horse and team work	24.06	10.65	18.22	8.11	26.98	17.66
Total cost of production	$82.57	72.55	79.78	$82.15	99.076	83.22
Man hours till harvest	61.35	68.90	60.41	73.77	58.61	54.71
Woman hours till harvest	2.16	6.51	9.30	8.50	9.06	7.10
Horse hours till harvest	41.30	38.28	32.32	41.50	27.64	36.20

Mr. NIXON. An examination of the reports of vineyard No. 1 of 8 acres shows an average net gain per year for five years of $3.82 per acre.

Senator CALDER. Was it within a year or the total gain——

Mr. NIXON. It was the average gain for five years on an acre.

Senator Gore asked whether the grapes could be sold for less money if the tax was removed there. This figure of $3.82 would seem to indicate that if the tax, amounting to over $30 a ton, was removed the grape grower, in any event, could not sell his grapes for any less. The next vineyard, No. 2, of 6 acres, shows an average net loss each year for five years of $1.33 per acre. This vineyard is situated 8 miles from the 8-acre vineyard, on different soil and operated under different conditions. You will note that this 6-acre vineyard has a total maintenance expense, average for five years, of $262.74; total labor expense, average for five years, of $130.60.

Senator CALDER. Now, the first vineyard netted a profit to the grape grower of $3.82 per acre?

Mr. NIXON. Yes, sir; $3.82 an acre, average for five years.

Senator CALDER. And the second?

Mr. NIXON. Averaged a loss per year for the five years of $1.33 per acre.

Senator CALDER. And the third one——

Mr. NIXON. Showed an average net gain each year for five years of $21.35.

Senator CALDER. Is it not possible that the grape grower who sustained a loss might have had inferior soil or was not a good business man or a good farmer?

Mr. NIXON. Not exactly; the third man whose case we have cited last is a man whose vineyard is a young vineyard being up on practically virgin soil, and yet he has not taken as good care of it as the other two men, for he has been exceedingly fortunate in being in a locality where he did not get any frost one year while all the other people got it. He also works his vineyard with a tractor, so that his expenses were undoubtedly reduced.

These three vineyards are owned and operated by representative grape growers who have kept accurate cost accounts on their vineyards for a period of five years. The three vineyards are on different soils and situated in different localities, and each represents the average cost of its locality. Taken as a whole, they will accurately represent the cost of operation in the Chautauqua fruit belt and probably represent a fair average of costs of production in New York State at least.

The figures on the average tonnage for this belt have been gathered by Mr. D. K. Falvey, president of the Chautauqua and Lake Erie Fruit Growers' Association, and represent the tonnage of grapes used by the grape juice manufacturers and wine manufacturers, and the tonnage shipped out of the belt by the railroads.

The average price per ton is the price received and reported by each of the three vineyardists whose cost accounts are herewith submitted.

It will be noted that there is some variance in the price for grapes received by these growers, due probably to different methods of marketing, and the often wide variance in price obtained in different sections of the belt and in different parts of the selling season.

It will be noted also that there is a variance in the net gain or loss on these vineyards, probably due to the different methods of handling each vineyard. For instance, vineyardist No. 3 uses a tractor, which undoubtedly reduces his cost of production. However, in his particular instance, his vineyard has not had as good care as vineyards Nos. 1 and 2, and his lower cost of production is now reflected in the physical inferiority of his vineyard, as compared with vineyards 1 and 2.

An examination of the itemized reports show an average gain for the five-year period of $16.34 an acre for two of the vineyards, and an average net loss of $1.33 an acre for the third vineyard.

Therefore, it is apparent that, taking these three vineyards as an average, grape growers of the Chautauqua belt and probably New York State, are making a relatively small profit on their vineyards, and that they can not, especially with 1920 prices of material and labor soaring, grow their grapes for less money or sell them for less money to the grape-juice companies or to the buyers on the open markets.

I might repeat that while vineyardist No. 3, with his tractor, shows a gain over the other two men and may get more money, yet his vineyard was not in as well kept a condition as the other two. I

personally know of these three farms, and so I can give those local conditions which the figures do not show.

Mr. JOHNSON (interposing). Not one of these estimates has taken into consideration the depreciation of the soil. There is a certain amount of available plant food that is taken out of the soil, which is a very valuable feature. Is that not true, Mr. Nixon?

Mr. NIXON. Yes, it is true. These figures were requested five years ago, and just became available at this time. The men are representative men, and their veracity can be vouched for, and I have no doubt but that these figures are just as close to the actual costs as it is possible to get with any farm or business system of cost.

I think it was Senator Sutherland asked what would be necessary to make grape juice really palatable, "whether a raisin would do it," and I want to say this: That grape juice has not gone through the alcoholic stage, and it goes into the sour grape juice into vinegar: and for that reason grape juice, with the stopper taken off, has no value, and it is not a competitor with liquor of any kind and it never has been. It is a purely soft drink, having some medical properties and it is not believed that it is antagonistic to the brewery interests or the other liquor interests. That is more or less of a mistaken illusion. We are manufacturing grape juice, and it is simply another form of wine—it is wine without having the properties of wine with an alcoholic content.

Representative REED. You spoke about it as a soft drink. You do not speak of it technically, but it really has a food value?

Mr. NIXON. Yes.

Representative REED. The revenue office gives a technical definition under soft drinks. It is a fruit juice?

Mr. NIXON. Yes; of course, you use it for various purposes. It is the pure juice of the grape, while the average soft drink contains merely a little charged water.

Representative REED. Is there any sugar used in the manufacture of this grape juice?

Mr. NIXON. Practically none.

Representative REED. Sugar is used in the manufacture of other drinks?

Mr. NIXON. Yes.

Representative REED. Then there would be a great saving in the conservation of sugar?

Mr. NIXON. I judge it would be. That point has been brought out, that we are practically using no sugar with grape juice.

Senator CALDER (to Representative Reed). Have you any more witnesses?

Representative REED. No more; and I just want to thank you and the other members of the committee for your patience in hearing us and in your kindness in arranging this hearing for us.

Senator CALDER. The subcommittee will report to the full committee what has been heard, and for my part I am heartily in favor of the bill.

If any of you gentlemen wish to submit additional data we will be pleased to have it inserted in the record of proceedings of to-day at this point.

(Thereupon, at 12.45 o'clock p. m. the committee adjourned to meet at the call of the chairman.)

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