

OKLAHOMA

Agricultural Experiment Station,

STILLWATER, O. T.

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Department of Horticulture.

GRAPES—1894.

FRANK A. WAUGH.

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GRAPES—1894.

BY F. A. WAUGH.

THE STATION VINEYARD.

LOCATION.—The vineyard of the Oklahoma Experiment Station is located on land a trifle higher than what is known as second bottom, the location being in no respect superior to ordinary upland. The soil has become almost famous over the Territory for its lack of fertility. It is a very thin top soil with a subsoil of heavy clay, approaching in many places dangerously near the composition of gumbo.

EXPOSURE.—Part of the vineyard, about half, is situated on a gentle slope to the east; the remainder is upon ground having about an equal slope to the west. This arrangement is not desirable from an experimental point of view, but was made at a time when such points could not receive due consideration. The bearing block is at a further disadvantage in that it lies in a long strip east and west, giving it the greatest possible exposure to the south wind and sun.

PLANTING.—Practically all the vines in the bearing block were planted in the spring of 1892. Stock was furnished mostly by Bush and Son and Meissner, Bushberg Nurseries, Bushberg, Mo.

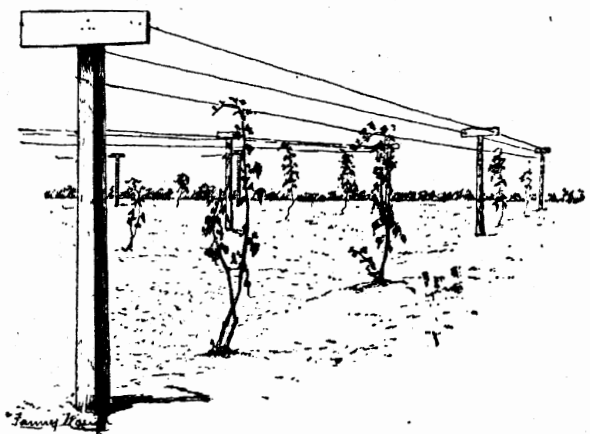
Late in the spring of 1893 the vineyard was taken in hand, and found at that time to have no trellis and to be in but poor condition for bearing, taking all varieties together. During the season of 1893 a trellis wa

built, and the vines were brought up to the wires as well as possible, considerable summer pruning and tying being done.

The plants are 15 feet apart east and west and 10 feet north and south. This is thought to be much more room than is needed. The planting was done on these measurements in order to match with the orchard planting next to it.

Ordinary clean culture with a five-tooth cultivator is all that has ever been given the vineyard. No crops have ever been planted between the rows. It is an open question whether some crop used to cover the bare ground between the rows would or would not have been more valuable than the simple mulch of pulverized earth.

TRELLIS.—The trellis used is made after the system of Mr. T. V. Munson, Denison, Texas. The posts are 5 ft. 8 in. high. At the tops are cross pieces 1x6 inches and two feet long. At each end of the cross-pieces runs a wire. Eight inches below, through the center of the post,



MUNSON TRELLIS.

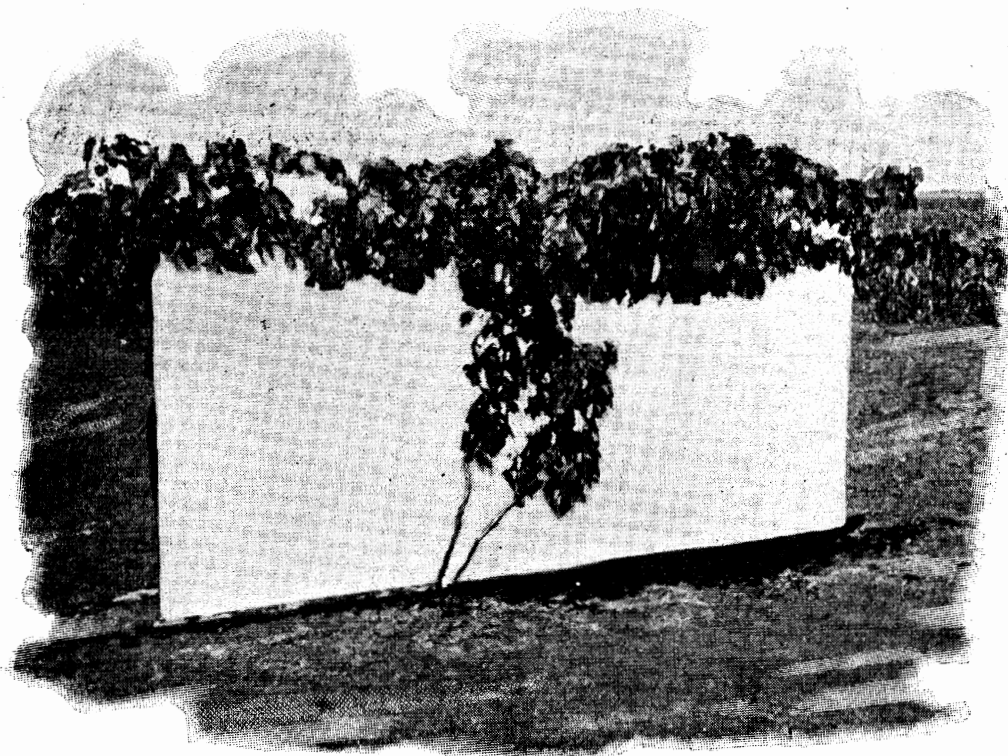
runs another wire. These three wires, placed thus in a sort of broad V-shape are the only wires of the trellis. The arrangement will be better understood by reference to the accompanying cut which is made from a photograph taken on the station grounds.

The system of pruning, which forms a necessary part of the plan, provides that a trunk be

brought up to the lower wire, and that from it canes shall be run each way along the lower wire. From these the bearing shoots come out at right angles and naturally fall out over the top wires. In practice it is never necessary to tie up the young shoots in order to have them take the desired places on the trellis.

Renewals are made in this system of pruning by spurs at the point where the main stem reaches the lower wire. It is of course desirable to make a low renewal occasionally; and it is not difficult to induce the growth of a cane from the root and to conduct it upward to the desired position on the trellis, after which the entire old vine may be cut away exactly as is done with low renewals in the horizontal arm system of pruning.

The Munson system of pruning has many advantages, apparently without a corresponding number of disadvantages. It has given entire satisfaction on the grounds of the Oklahoma Experiment Station. Its success has been so pronounced that everyone who saw it during the season of 1894, almost without exception, became converted to a firm belief in its desirability. Many practical men of the neighborhood who strongly doubted its success at first have not only expressed their entire satisfaction with the result, but have decided to use the system in their own vineyards. I do not believe that the results thus far would at all justify me in recommending that the Munson trellises be universally substituted for all others; but I have no hesitation in pressing this style of trellis and this system of



THE MUNSON TRELLIS.—JAEZ. The sheet is six feet high.

training upon the attention of anyone who has a vineyard without a trellis.

Among the advantages of the system are some of especial weight. In the first place it is much easier to get about through the vineyard when a Munson trellis is in use than through a vineyard trained on any of the low trellis systems. In a properly constructed Munson trellis the lowest wire is over 5 feet from the ground, and thus permits a good sized man to

walk about without the slightest inconvenience. This is of considerable practical importance in spraying, picking, etc.

Secondly the training of the bearing part of the vine at about the height of a man's head makes the work of spraying, bagging and picking the fruit a very great deal easier than when the bulk of the vine hangs within twelve to twenty inches of the ground.

But a point of still greater practical importance is the work of summer tying and pruning. In any style of horizontal arm training a great deal of tedious tying up of shoots is unavoidable. The entire vineyard must be gone over from three to ten times and the loose shoots tied up to the trellis. This work is expensive, and eats up the profits of the grape-grower. However, in the Munson system of training, the young bearing shoots grow naturally out over the upper side wires and their ends hang down from there so that they are supported just as well as they possibly could be without the tying of a single knot. In fine, tying up fruiting shoots is done away with by this system.

At the same time this arrangement of the vine proves to be well adapted to resist the severe winds; and as everyone knows, this is no small problem with the grape grower. At first sight the trellis six feet high seems to be especially exposed to damage from wind; but the difficulty is entirely overcome by the arrangement of the wood on the wires. As already explained the shoots hang suspended from their bases, and are perfectly free to swing without obstruction before any breeze that blows. Any grape grower can not have failed to notice that the greatest damage from wind comes about by the beating of shoots against the wires of the trellis. It is absolutely impossible for this to happen on the trellis under consideration. It is quite as well understood that the fruit is damaged in the same way, that is by being beat against the trellis. In the Munson system the bearing shoot is supported at its base by the middle wire, and again by one of the outer wires about 16 or 18 inches from the base. Between these two points all the fruit is borne; and since this part of the shoot lies practically horizontal, the bunches of fruit hang down at right angles from it, making it quite out of the question for them to strike against anything. The members of the Payne County Horticultural Society visited the vineyard in a body one day last June when the wind was blowing a hurricane of the sort which we too frequently have in this country. The grapes were at that time just approaching maturity. No better opportunity could have been offered to observe the adaptability of the trellis to

that sort of weather. It was the general opinion of all present that the trellis was particularly satisfactory in this respect.

Lastly this form of training gives the greatest protection from our severely hot sunshine. The fact that the foliage is spread in a wide canopy over the top of all is in favor of the plan from the first. But greater than this by far is the advantage of having the fruit held up six feet from the ground. It has been the common observation of horticulturists the past summer that the worst damage did not occur from the direct rays of the sun, but came about through the reflection from the ground. In horizontal arm systems of training the fruit is borne so close to the ground that the loss from this cause is very considerable. It has been conservatively estimated at from 10 to 60 per cent in Oklahoma vineyards all over the Territory this year; worse in some vineyards and not so bad in others. I think it is safe to say that there was not a single berry in our vineyard lost by reason of the heat radiation from the soil.

These three points, namely, (1) protection from wind, (2) protection from sun, (3) economy in tying, seem to me to be of supreme importance. They certainly influence the profitableness of the vineyard more than all other considerations, unless it be possibly the productiveness of the vines in the first place.

INSECTS were not troublesome during the summer. May beetles were noted on the vines in large numbers during May, but did no appreciable damage. On the first of July there suddenly appeared on one end of the vineyard a large swarm of the spotted grape beetle (*Pelidnota punctata*.) These ate the vines nearly bare before them, moving from vine to vine as their feeding went on. The vineyard was at once sprayed with lead arsenate, and the destruction ceased. Whether the connection is one of cause with effect or simply circumstantial is an open question. Leaf rollers were more destructive than any other insects, and their depredations reached over more of the summer. Spraying was not so successful against them as against most of our enemies. Hand crushing the larvae in the folded leaves is recommended by the entomologists.

DISEASES.—No diseases of economic importance appeared during the year; but it is a point of no small practical significance that black rot was found in small quantities, and another disease, apparently the anthracnose, or bird's eye rot, just a trace. It shows that the spores from which these diseases arise are with us, and that whenever the weather is right, we ma

look for attacks of rot and mildew just as severe as they have anywhere else.

The vineyards were sprayed four times during the year, the first time being March 17th. The last spraying, given August 24th, was only a dose of Paris green, put on for the leaf rollers, which, as has already been said, did not prove eminently beneficial.

BAGGING.—Paper candy sacks, such as are used in the groceries everywhere, were put on about half of the bunches of each variety during June and July. On account of the severely dry weather which followed and obtained all through the ripening season, it is thought these bags did not do as much good as usual. Still it was plain that they helped materially in bringing through fine bunches and in keeping them in good condition for some time after ripening.

VARIETIES.—The vineyard of the Experiment Station contains a little over 200 species and varieties of grapes. Of these 120 varieties belong to the original planting. Eighty-five varieties were in bearing this year.

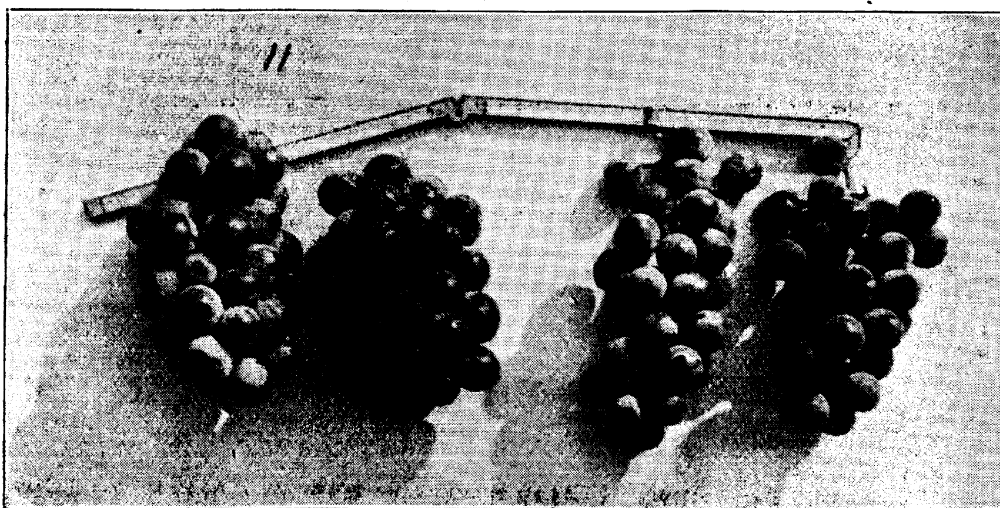
In the notes of varieties given below there is shown the yield of each reduced to pounds per vine.

I give below a list of varieties which fruited this year, and the amount of fruit in pounds to the vine. One will be struck at once with the very small yield of many varieties; but this is not surprising when one comes to think of it. Out of 85 varieties it is hardly to be expected that many will be as prolific as the Catawba. The yield of all varieties is small, however, from a number of reasons, not the least of which is the fact that they were very closely pruned in consideration of this being their first crop.

BLACK VARIETIES.

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|---|------|
| ALVEY, (a hybrid, Dr. Harvey, Hagarstown, Md.) Vines medium; bunches small and straggling; berries small and unevenly ripened, August 5. | .37 |
| AMANDA, (not able to learn origin.) Vines medium strong; bunches large and very compact; berries very large and quite evenly ripened, August 24. | 11.7 |
| This was one of the most surprising varieties in the test. It was unusually prolific, of extra large size, with a beautiful, compact, rounded bunch, ripening very late. The skin was very thick and tough, and the berries held very tenaciously to the stem. The quality, however, was exceedingly disappointing, the flavor being very flat and insipid. While this variety can not be unreservedly recommended, it is certainly worth a trial. Careful inquiry among nurserymen has thus far not found a place where vines can be bought. | |
| BARRY, (Rogers' No. 43, E. S. Rogers, Salem, Mass.) Vines medium strong; bunches medium size and straggling; berries extra large and evenly ripened, July 28. | 1.9 |
| Extra good for table. | |
| BLACK DEFIANCE, (A hybrid.) Vines weak; bunches large and straggling; berries large and unevenly ripened, September 7. | .88 |

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|---|------|
| BLACK PEARL, (<i>Vitis riparia</i> .) Vines medium strong; bunches small and compact; berries small and evenly ripened, July 23. | 2.97 |
| CAMBRIDGE, (<i>Vitis Labrusca</i> .) Vines medium strong; bunches large and straggling; berries large and rather unevenly ripened, August 12. | 2.97 |
| A good bearer, very similar to Concord, but inferior. | |
| CHAMPION, (Syn. Talman, <i>Vitis Labrusca</i> .) Vines medium strong; bunches small and quite compact; berries small and evenly ripened, July 18. | 2.24 |
| A promising early variety. | |
| CLINTON, (<i>Vitis riparia</i> , Western New York, perhaps.) Vines very strong; bunches small and compact; berries small and evenly ripened, August 8. | 3.45 |
| A good jelly grape, but not the best. | |



| AMANDA. | CAMBRIDGE. |
|---|------------|
| CONCORD, (<i>Vitis Labrusca</i> seedling, Concord, Conn.) Vines medium strong; bunches large and straggling; berries large and unevenly ripened, August 15. | 4.26 |
| Still the standard, especially for market. It is, however, surpassed in all points by other varieties. | |
| COTTAGE, (<i>Vitis Labrusca</i> , E. W. Bull.) Vines medium strong; bunches fair size and compact, berries large and evenly ripened, July 31. | 3.3 |
| A prolific bearer, but inferior in quality. | |
| CYNTHIANA, (<i>Vitis aestivalis</i> , origin unknown; said to be Kansas.) Vines medium strong; bunches fair sized and compact; berries small and evenly ripened, August 13. | 1.36 |
| Stands next to Herbemont and Herman Jæger as a wine grape. | |
| DEVEREUX, (Syn. Black July. <i>Vitis aestivalis</i> , origin uncertain.) Vines very strong; bunches rather small but compact; berries small and evenly ripened, August 8. | .89 |
| A promising wine grape. Makes a very fine bunch. | |
| DR. WARDER. Vines very strong; bunches small and fairly compact; berries small and evenly ripened, July 28. | 4.41 |
| Prolific and promising. | |
| EARLY VICTOR, (<i>Vitis Labrusca</i> seedling, John Burr, Leavenworth, Kansas.) Vines medium strong; bunches medium size and compact; berries small and evenly ripened, July 18. | 2.03 |
| As grown here this variety is much superior to Moore's early, being quite as early, and much better in quality and appearance. | |
| EUMELAN, (<i>Vitis aestivalis</i> seedling, Fishkill, N. Y.) Vines weak; bunches small and straggling; berries small and evenly ripened, August 4. | .44 |
| HARTFORD PROLIFIC, (<i>Vitis Labrusca</i> , Hartford, Conn.) Vines medium strong; bunches good size and straggling; berries small and evenly ripened, July 8. | 9.7 |

Has many points of desirability as an early grape, but is deficient in quality.

HERBEMONT, (*Vitis aestivalis*, of Southern origin.) Vines medium; bunches large and compact; berries small and evenly ripened, August 13. 4.41

Takes first rank as a wine and jelly grape. Bunch unsurpassed.

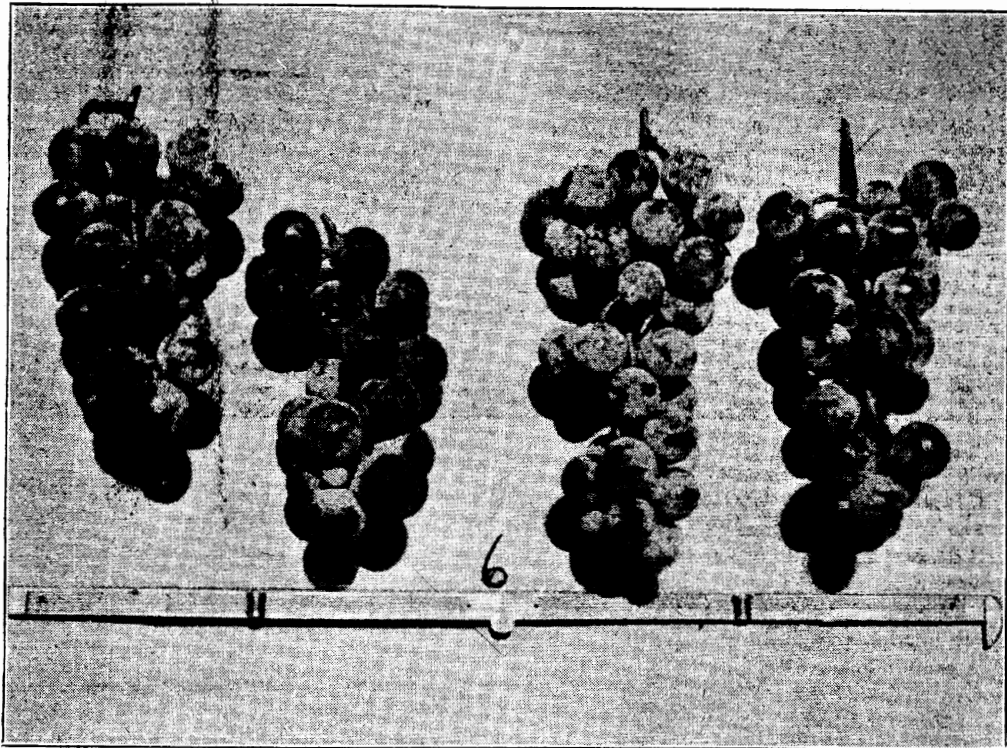
HERBERT, (Rogers' No. 44, E. S. Rogers, Salem, Mass.) Vines medium strong; bunches large and fairly compact; berries very large and quite unevenly ripened, July 26. 2.31

For bunch, berry and quality the variety is unsurpassed. It is one of the very best table grapes.

HERMAN J. EGER, (Post Oak X Herbemont, T. V. Munson, Denison, Tex.) Vines medium; bunches large and compact; berries large and evenly ripened, August 8. 5.1

This variety with Herbemont heads the list of wine and jelly grapes. The berry is larger than Herbemont and the bunch is excellent. It is to be highly recommended.

HIGHLAND, (Concord X *Vitis vinifera*.) Vines weak; bunches medium-size and straggling; berries large and unevenly ripened, September 7. 2.42



WORDEN.

CONCORD.

IRON CLAD, (*Vitis riparia*, cross.) Vines very strong; bunches small and rather straggling; berries small and unevenly ripened, July 23. 3.48

A good bearer, but has no other desirable qualities.

ISABELLA, (*Vitis Labrusca*, South Carolina.) Vines very strong; bunches large and straggling; berries large and unevenly ripened, September 7. 3.71

A good bearer, but objectionable on account of poor bunches and uneven ripening.

ISRAELLA, (*Vitis Labrusca*, Dr. C. W. Grant, Iona Island, N. Y.) Vines very strong; bunches large and straggling; berries large and unevenly ripened, September 7. 8.28

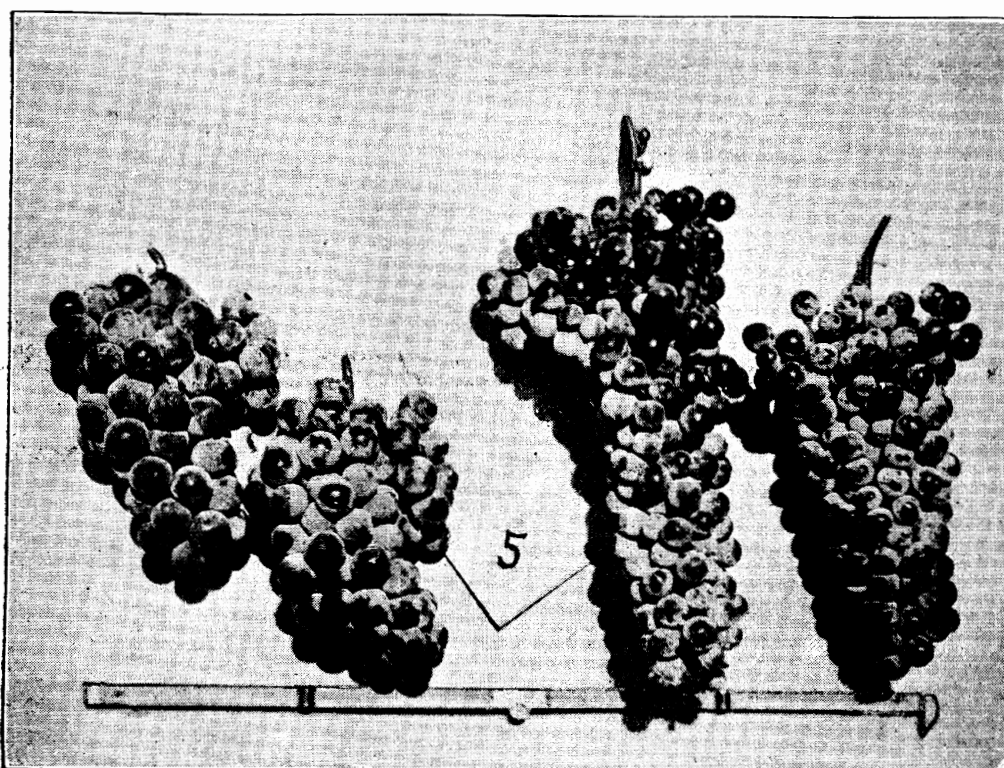
Very prolific, but undesirable on account of poor bunches, poor berries and uneven ripening.

JANESVILLE, (*Vitis riparia*, cross.) Vines very strong; bunches small and fairly compact; berries medium size and evenly ripened, July 18. 8.69

- Not of extra quality, but desirable from the fact that it ripens a large crop all at once and very early in the season.
- JAQUEZ, (Syn. Ohio, origin unknown. Vines medium strong; bunches extra long and compact; berries small and unevenly ripened, August 8. 5-35
A valuable variety for wine and jelly.
- MARION, (*Vitis riparia*, history unknown.) Vines very strong; bunches small and compact; berries small and evenly ripened, July 23.
- MARY ANN, (*Vitis Labrusca*, J. B. Garber, Columbia, Penn.) Vines medium strong; bunches small and straggling; berries medium size and unevenly ripened, July 21. .33
- MERRIMACK, (Rogers' No. 19, *Vitis Labrusca* X *V. vinifera*, E. S. Rogers, Salem, Mass.) Vines medium; bunches large and very straggling; berries large and evenly ripened, August 10. .22
- MILLS, (*Vitis Labrusca* X *V. vinifera* ? Vines medium strong; bunches large and very compact; berries large and evenly ripened, August 4. 4-4
Should have further trial.
- MONTEFIORE, (*Vitis riparia* X *V. Labrusca* ?) Vines medium; bunches small and straggling; berries small and evenly ripened, August 23. .44
- MOORE'S EARLY, (*Vitis Labrusca*.) Vines medium; bunches large and straggling; berries large and evenly ripened, July 21. -33
Has not shown any merit with us.
- NEOSHO, (*Vitis aestivalis*.) Vines medium strong; bunches small and straggling; berries large and evenly ripened, September 7. -55
- NEW HAVEN, (*Vitis Labrusca*.) Vines medium; bunches small and straggling; berries small and evenly ripened, July 26. 1.75
- NORTON'S VIRGINIA, (*Vitis aestivalis*, Dr. D. N. Norton, Richmond, Va.) Vines medium strong; bunches medium size and compact; berries small and evenly ripened, August 8. .66
Should have further trial, but is apparently inferior to Herbemont, Herman Jæger and Cynthia.
- RENTZ, (Cincinnati, Ohio.) Vines medium strong; bunches large and straggling; berries large and unevenly ripened, August 7. .29
Probably untrue to name.
- ROGERS' No. 2, (*Vitis Labrusca* X *V. vinifera* ? Salem, Mass.) Vines medium strong; bunches large and fairly compact; berries large and evenly ripened, August 8. 1.19
- SECRETARY, (a hybrid.) Vines medium; bunches compact; berries small and evenly ripened, July 31. 1.28
- TELEGRAPH, (*Vitis Labrusca* seedling, Philadelphia, Penn.) Vines medium strong; bunches small and compact; berries medium size and evenly ripened, July 26. 1.47
- WHITEHALL, (*Vitis Labrusca*.) Vines medium strong; bunches small and fairly compact; berries large and quite evenly ripened, July 21. .74
- WILDER, (Rogers' No. 4. E. S. Rogers, Salem, Mass.) Vines medium strong; bunches large and rather straggling; berries very large and evenly ripened, July 26. .44
Though not yielding heavily in this case, this variety gave satisfaction in quality and appearance, and is worthy a careful trial.
- WORDEN'S SEEDLING, (*Vitis Labrusca*, seedling of Concord.) Vines medium strong; bunches large and compact; berries large and unevenly ripened, August 13. 1.65
Very similar to Concord, but with us better than that variety in bunch, berry and quality. Worthy of extensive planting.
- YORK MADEIRA, (York Co., Penn.) Vines medium strong; bunches small and straggling; berries small and evenly ripened, August 7. 5.28
- CUNNINGHAM, (New.) Vines very strong; bunches small and compact; berries small and evenly ripened, September 7. 4.84
A new variety of great promise as a wine and jelly grape. Has a very vigorous vine, and a bunch resembling Herbemont, but even better, quite late; well worth trying.

WHITE VARIETIES.

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| ANTIONETTE, (<i>Vitis Labrusca</i> .) Vines medium, bunches small and straggling; berries small and evenly ripened, July 21. | |
| AUTUCHON, (Arnold's No. 5, Clinton X Golden Chasselas, Charles Arnold, Paris, Canada.) Vines medium; bunches small and straggling; berries small and evenly ripened, August 15. | 2.2 |
| CAMPBELL, (Seedling of Triumph) Vines weak; bunches large and compact; berries medium large and evenly ripened, July 21. | .8 |
| A variety of some promise. | |
| ELDORADO, (Concord X <i>Vitis vinifera</i> .) Vines medium; bunches small and straggling; berries medium size and evenly ripened, July 31. | .33 |
| ETTA, (Rommel's <i>Vitis riparia</i> , cross.) Vines medium strong; bunches large and compact; berries large and unevenly ripened, September 7. | 5.81 |



HERMAN JÆGER.

JAQUEZ.

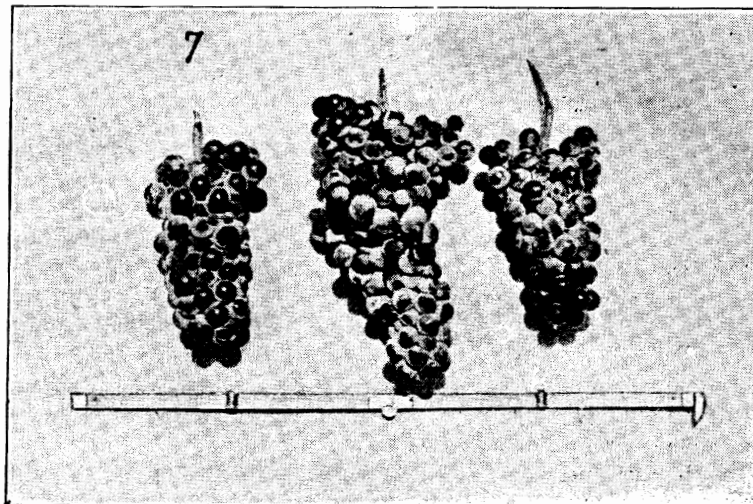
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| ELVIRA, (<i>Vitis riparia</i> X <i>V. Labrusca</i> ?). Vines medium strong; bunches small and very compact; berries rather small and evenly ripened, July 31. | 6.65 |
| A standard variety. A prolific bearer; but not very useful except for wine. | |
| EMPIRE STATE, (<i>Vitis riparia</i> X <i>V. Labrusca</i> .) Vines medium; bunches small and compact; berries small and evenly ripened, July 31. | .11 |
| Of extra-quality, but doubtfully hardy. | |
| FAITH, (<i>Vitis riparia</i> X <i>V. Labrusca</i> ?). Vines medium strong; bunches small and straggling; berries small and evenly ripened, July 21. | .96 |
| A fine early white grape for table use. | |
| F. B. HAYES, (<i>Vitis Labrusca</i> .) Vines medium; bunches medium size and fairly compact berries fair size and evenly ripened, July 28. | .11 |

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| Good early grape for table. | |
| GREIN'S GOLDEN, (<i>Vitis riparia</i> X <i>V. Labrusca</i> ?). Vines medium; bunches large and compact; berries large and evenly ripened, September 7. | 1.12 |
| GREEN MOUNTAIN, (<i>Vitis Labrusca</i> .) Vines medium; bunches medium size and straggling; berries small and evenly ripened, July 26. | 1.65 |
| IRVING, (Concord X <i>Vitis vinifera</i> .) Vines medium strong; bunches very large and compact; berries large and evenly ripened, July 31. | 1.38 |
| A good looking grape, bearing large bunches. The berries, however, crack open and pull easily loose from the stems. The quality is also poor. | |
| LADY WASHINGTON, (Concord X Allen's Hybrid. James H. Ricketts, Newburgh, N. Y.) Vines medium strong; bunches very large and compact; berries large and evenly ripened, August 15. | 1.55 |
| Fruit of good quality. | |
| MASON'S SEEDLING, (<i>Vitis Labrusca</i> .) Vines medium; bunches large and compact; berries large and evenly ripened, July 31. | 1.43 |
| Fruit fine quality. Worthy of further trial. | |
| MOORE'S DIAMOND, (<i>Vitis Labrusca</i> .) Vines medium strong; bunches large and compact; berries large and evenly ripened, July 31. | .48 |
| Though this variety did not bear well this year in the Station vineyard, it has the promise of being one of the leading white grapes of this section. It has succeeded well elsewhere, and may be recommended for general planting. | |
| NOAH, (<i>Vitis Labrusca</i> , cross.) Vines very strong; bunches medium size and compact; berries large and unevenly ripened, August 31. | .29 |
| PEARL, (A <i>Vitis riparia</i> , cross.) Vines medium strong; bunches small and straggling; berries small and evenly ripened, August 7. | .33 |
| POCKLINGTON, (Concord Seedling, John Pocklington, Sandy Hill, N. Y.) Vines medium; bunches large and compact; berries large and unevenly ripened, September 1. | .99 |
| Fine bunches; grapes of good quality. | |
| PRENTISS, (Isabella Seedling, J. W. Prentiss, Pultney, N. Y.) Vines medium strong; bunches large and compact; berries large and evenly ripened, July 28. | 1.1 |
| TAYLOR'S BULLET, (<i>Vitis riparia</i> , cross. Henry Co., Ky.) Vines very strong; bunches small and compact; berries small and evenly ripened, August 24. | .29 |
| Little better than a complete failure this year. | |
| UHLAND, (A <i>Vitis riparia</i> , cross.) Vines medium strong; bunches small and compact; berries small and evenly ripened, August 8. | 3.45 |
| A prolific bearer, but not apparently desirable in bunch, berry or flavor. | |
| JESSICA, (<i>Vitis riparia</i> X <i>V. vinifera</i> .) Vines weak; bunches small and straggling; berries small and evenly ripened, September 1. | .55 |

RED VARIETIES.

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|---|------|
| BRILLIANT, (Lindley X Delaware, T. V. Munson, Denison, Texas.) Vines medium strong; bunches medium size and quite compact; berries fair size and unevenly ripened, July 26. | 2.82 |
| One of the most promising varieties on the grounds; of fine quality. | |
| BRANT, (Arnold's No. 8, <i>Vitis riparia</i> X <i>V. vinifera</i> , C. Arnold, Canada.) Vines medium; bunches small and compact; berries small and evenly ripened, August 10. | |
| CATAWBA, (<i>Vitis Labrusca</i> , Maryland.) Vines very strong; bunches large and straggling; berries large and evenly ripened, September 7. | 7.85 |
| Has done extra well. This promises to be a leading variety in Oklahoma. | |

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| DRACUT AMBER, (<i>V. Labrusca</i> , J. W. Manning, Dracut, Mass.) Vines medium strong; bunches fair size and quite compact; berries medium size and evenly ripened, September 1. | .22 |
| Our vines are undoubtedly not true to name. | |
| GÆTHE, (Rogers' No. 1, E. S. Rogers, Salem, Mass.) Vines very strong; bunches large and straggling; berries large and evenly ripened; September 7. | 7.9 |
| One of the most vigorous growers and prolific bearers in the vineyard, and of very first quality. | |
| IONA, (<i>Vitis Labrusca</i> X <i>V. vinifera</i> ? Dr. C. W. Grant, Iona Island, N. Y.) Vines weak; bunches small and straggling; bunches large and evenly ripened, July 31. | 1.98 |
| LINDLEY, (Rogers' No. 9, E. S. Rogers, Salem, Mass. (<i>Vitis Labrusca</i> X <i>V. vinifera</i> .) Vines medium, bunches small and straggling; berries small and evenly ripened, August 7. | .72 |
| LUTIE, (<i>Vitis Labrusca</i> .) Vines medium strong; bunch small and compact, berries large and unevenly ripened, July 23. | .88 |
| Fruit of excellent quality. | |
| MASSASSOIT, (Rogers' No 3, E. S. Rogers, Salem, Mass.) Vines medium; bunches large and compact; berries large and evenly ripened, August 7 | 1.65 |



NORTON'S VIRGINIA. HERBEMONT. CYNTHIANA.

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| NORFOLK, (<i>Vitis Labrusca</i> .) Vines medium strong; bunches fair size and straggling; berries large and evenly ripened, July 31. | .72 |
| NORTHERN MUSCADINE, (<i>Vitis Labrusca</i> , New Lebanon, N. Y.) Vines medium strong; bunches small and straggling; berries medium size and unevenly ripened, July 31. | .84 |
| PERKINS, (<i>Vitis Labrusca</i> .) Vines medium strong; bunches fair size and straggling; berries medium size and unevenly ripened, July 21. | 2.9 |
| A very promising early grape. It has done well all through the Territory. | |
| VENANGO, (<i>V. Labrusca</i> , said to be of French origin.) Vines medium; bunches small and straggling; berries large and evenly ripened, September 1. | .14 |
| WALTER, (Delaware X Diana, A. J. Caywood, Poughkeepsie, N. Y.) Vines weak; bunches small and compact; berries small and evenly ripened, August 24. | .22 |
| DELAWARE, (<i>Vitis Labrusca</i> X <i>V. vinifera</i> ? origin unknown.) Vines medium; bunches small and compact, berries small and evenly ripened, September 1. | 1.1 |
| Worthy of further trial. Is well reported from other sections of Oklahoma. | |

CONCLUSIONS

About the only practical conclusion which may be arrived at in this case is gained by dividing these varieties into three classes: First, those which have proved successful; second, those which have been failures; and, third, those which are still doubtful. Of course all these terms are relative, and the meager notes which we have make it certain that later revisions of such a classification will be necessary. Nevertheless, to the best of our judgment, the following varieties show considerable promise:

Amanda, Barry, Black Pearl, Brilliant, Cambridge, Catawba, Champion, Clinton, Concord, Cottage, Cunningham, Cynthiana, Devereux, Dr. Warder, Early Victor, Elvira, Etta, Faith, F. B. Hayes, Goethe, Hartford Prolific, Herbemont, Herbert, Herman Jaeger, Iron Clad, Irving, Isabella, Israella, Janesville, Jaquez, Lutie, Mills, Lady Washington, Marion, Perkins, Uhland, Wilder, Worden, York Madeira.

It is believed that all the foregoing are worth cultivating; and they certainly present a very fair list from which to choose.

Among those which have been thus far failures should be placed the following varieties:

Alvey, Autuchon, Eldorado, Eumelan, Mary Ann, Montefiore, Neosho, Noah, Norfolk, Northern Miscadine, Pearl, Rentz, (probably untrue to name,) Taylor's Bullet, Venango, Walter, Whitehall.

In the third class are placed those varieties which have as yet given no pronounced results either way, but are thought to be worth a further trial. They are:

Black Defiance, Campbell, Delaware, Dracut Amber, (probably untrue to name,) Empire State, Green Mountain, Grein's Golden, Highland, Iona, Lindley, Massasoit, Merrimack, Mason's Seedling, Moore's Diamond, Moore's Early, New Haven, Norton's Virginia, Pocklington, Prentiss, Roger's No. 2, Secretary, (probably untrue to name,) Telegraph.

Now if one were to select a list of the very choicest and best sorts for home planting, basing his judgment chiefly on the developments to be seen

in the Station vineyard during the summer just past, the following varieties should receive special mention:

BLACK VARIETIES:

For early crop: Janesville, Hartford Prolific, Champion, Early Victor.

All these are inferior in most respects, having little else besides their earliness to recommend them.

For general crop: Herbert, Worden, Wilder, Concord, Barry.

WHITE VARIETIES: Faith, early; F. B. Hayes, early; Moore's Diamond.

Other white varieties, like Uhland, and Irving, which made a good yield, were very poor in quality. Niagara, which has done well in other parts of the Territory is not represented in the Station vineyard.

RED VARIETIES: Perkins, medium early; Brilliant, very fine; Gøethe, late; Catawba, late.

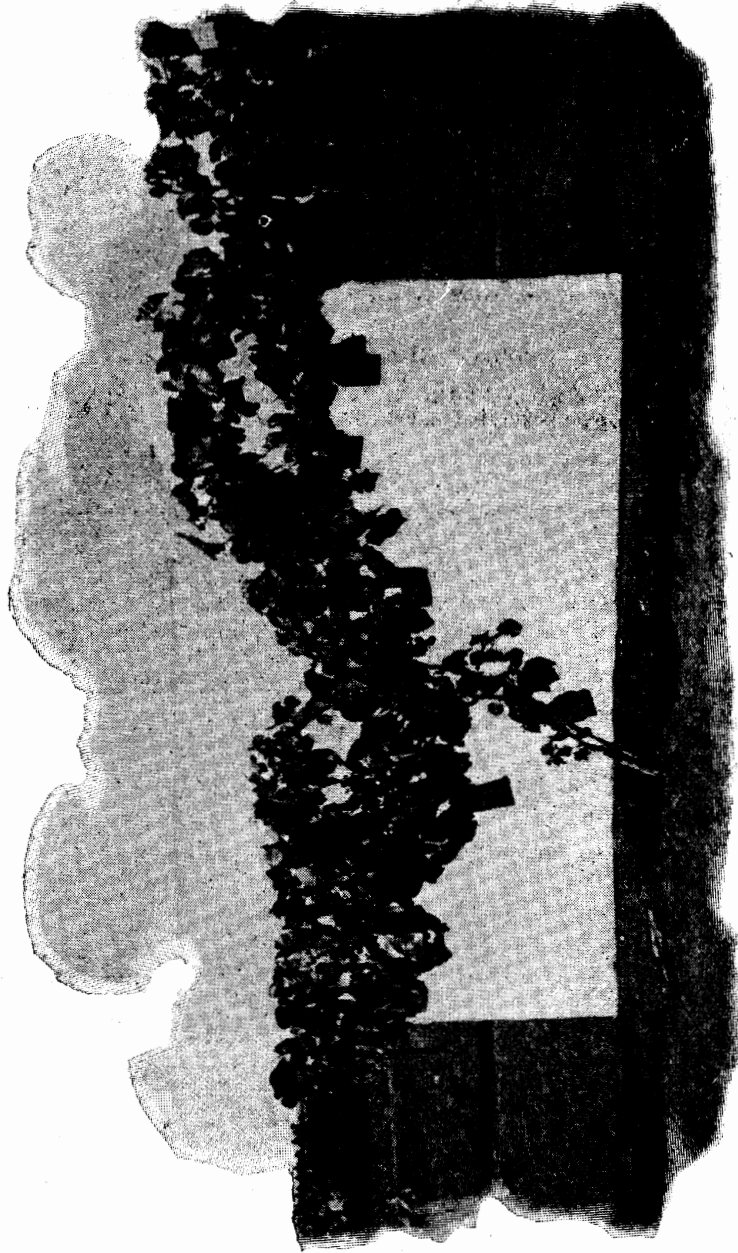
Delaware, which has done well elsewhere in Oklahoma was not fairly represented in the Station vineyard.

WINE GRAPES: Herbemont, Herman Jæger, Cunningham, Elvira, Jaquez.

To this list might be added the Catawba, except that it is so excellent for other purposes that it is not likely to be used for wine.

It will be noticed that throughout this classification, very little attention has been paid to the comparative yields of varieties. This is regarded as the least satisfactory and most uncertain quantity in the computation; and judgment has accordingly been rendered with due regard to vigor of vine, appearance of bunch and berry, and especially to quality, without, however, totally disregarding productiveness.

This report is not final, nor the results conclusive; but it is hoped that it may save expensive experimentation on the part of men who want grapes and who can ill afford the time and money to make these tests for themselves.



CATAWBA VINE ON MUNSON TRELLIS. THE SHEET IS SIX FEET HIGH.

GUTHRIE, OKLA.
HOME, FIELD AND FORUM CO.
1895.