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Horticulture: results of the year 1893

F H. Burnette

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SECOND SERIES,

No. 27.

BULLETIN
OF THE
LOUISIANA STATE EXPERIMENT STATIONS.
WM. C. STUBBS, PH. D., DIRECTOR.

HORTICULTURE.
RESULTS OF THE YEAR 1893,
— BY —

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GENE WATSON, HORTICULTURIST, CALHOUN,
WM. C. STUBBS, DIRECTOR, AUDUBON PARK.

ISSUED BY THE BUREAU OF AGRICULTURE.
H. C. NEWSOM, COMMISSIONER.

BATON ROUGE, LA.
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BUREAU OF AGRICULTURE.

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LOUISIANA STATE UNIVERSITY AND A. AND M. COLLEGE, }
OFFICE OF EXPERIMENT STATIONS, }
Baton Rouge, La., March, 1894. }

Hon. H. C. Newsom, Commissioner of Agriculture, Baton Rouge, La.

I hand you herewith the results of last year in Horticultural Work. With Mr. Burnette's report, which constitutes the greater part of this Bulletin, has been incorporated the results from Calhoun by Mr. Gene Watson, and the results from Audubon Park. I ask that you publish this as Bulletin No. 27.

Respectfully submitted,

WM. C. STUBBS,

Director.

PREFACE.

This Bulletin is intended to convey to the public the information obtained along the lines of the "truck growing" and "fruit raising" by experiments conducted at the three Experiment Stations in this State.

The main work, however, in general Horticulture is conducted at Baton Rouge, where ten acres of land, well drained, (a portion tiled drained), has for several years been devoted to fruits and vegetables, and is known as the "Horticultural Department" of the State Experiment Station. This department was originally combined with the department of Entomology, and was under the management of Prof. H. A. Morgan. It was found in 1892 that the duties of the Entomologist were so great (and daily increasing) that he could not give proper attention to Horticulture. It was deemed best, therefore, to separate the two departments, which was done, leaving Prof. H. A. Morgan in charge of Entomology and calling Mr. F. H. Burnette to take charge of Horticulture.

Mr. Burnette is well qualified, both by experience and education, for the position. Trained under Prof. Bailey, of Cornell University, and subsequently disciplined by actual work in Southern horticulture, he brings to his labors a varied experience coupled with scientific acquirements, which, with an enthusiasm for his profession and a diligent inquiry after truth, will enable him to add greatly to the limited knowledge of Southern horticulture. This Bulletin has been mainly prepared by him, and when not otherwise specified, the experiments were conducted by him at Baton Rouge.

At Calhoun, six acres have been devoted to fruits and about three acres to vegetables, and Mr. Gene Watson has charge.

His report, which has been commingled with that from Baton Rouge, shows how faithfully and intelligently he has performed his work. At Audubon Park, the orchard is occupied mainly with citrous fruits, with a few Olives (11 varieties), figs, pomegranites, Japan plums and persimmons, pears and peaches. In vegetables only tests of a few varieties of each are made.

During the past year frequent inquiries have been made from all parts of the State for horticultural information, which have been promptly answered.

The Horticultural Department at Baton Rouge has during the past year propagated and distributed in limited quantities the most promising varieties of strawberries, grapes, pears, pomegranites, plums, figs and dewberries. By such distributions it is hoped that an interest in the acquisition of good fruits may be created, which will ultimately develop into excellent home orchards and gardens. Hereafter information in regard to fruit and vegetables may be obtained by addressing F. H. Burnette, Horticulturist, Baton Rouge, La. When application is made for cuttings, buds, or young plants, money enough to cover postage must be sent to him with the order if desired by mail, otherwise they will be sent by express. The postage is eight cents per pound. No charge is made for the articles or for packing.

The orchards on the three Stations are all young and are just beginning to bear fruit. This must be borne in mind by the reader in perusing the pages devoted to fruit.

WM. C. STUBBS, Director.

VEGETABLES.

ASPARAGUS.

The beds of asparagus are now quite well established, and some idea of the comparative value of the varieties grown on the grounds, may be obtained from the following :

1. *Barr's Mammoth*.—First cutting, February 10th, yielded good sized shoots and is forming a thickly matted bed.

2. *Conover's Colossal*.—First cutting February 21st. The shoots of this variety are larger than Barr's, but it seems to be much slower in forming a good bed.

3. *Moore's Cross-bed*.—First cutting February 15. This variety has shown more improvement than any on our list. Its shoots are of large size, and its bed well established.

4. *Palmetto*.—First cutting March 5. This is our latest variety, and has not gained any during the last year. Its shoots are smaller than any of the other varieties and its roots are of much slower growth.

BEANS.

During the year, at Baton Rouge, seven sowings of beans were made, a rather full list of varieties was obtained, and a record kept of yields and earliness.

The two plantings, earliest and latest, are probably the most interesting to vegetable growers, and a condensed record of these plantings is given only.

BUSH BEANS.

1. *Early Mohawk Six Weeks*.—First Picking, at Baton Rouge, April 25. This variety gave the best results for the first crop,

and yielded a fine crop of long pods, was very productive in each successive planting.

2. *Wardell's New Kidney Wax*.—First picking April 29. This is probably our best wax sort. It yields a beautiful pod, which makes attractive bunches in market.

3. *Best of All*.—First picking May 1. Comes into bearing soon after Early Mohawk, and produces excellent long pods for market.

4. *Early Yellow Six Weeks*.—First picking April 27. As a general purpose bean this stands among our best; a good cropper.

5. *Pride of Newton*.—First picking May 10. A very good green podded variety, but did not yield as well as some others.

6. *Improved Red Speckled Valentine*.—First picking May 18. A late variety of average good productiveness.

7. *Grenell's Improved Dwarf Golden Wax*.—First picking May 18. This is a dwarf, rich colored wax bean, very prolific and a good grower.

8. *Red Kidney*. 9. *White Kidney*.—These two beans are not popular here in the garden. They are good growers and prolific, but as they are not desirable as string beans there is no demand for them.

POLE BEANS AND OTHERS.

1. *Early Golden Cluster*.—This is our earliest and most productive pole bean at Baton Rouge. The pods are very attractive and sell well. The first sowing furnished pickings from May 24 until June 29.

2. *Lazy Wife's*.—This variety did poorly, as it was attacked early in the season by a fungus disease. However, it yielded a few beans May 29.

3. *White Dutch Case Knife*.—First picking May 24. A bean of moderate growth and fair product.

4. *German Wax*.—First picking May 25. This variety follows the Dutch Case Knife in maturity. It has crispy wax pods.

5. *Golden Wax Flageolet*.—First picking May 24. This is a variety of promise, yielding fine pods, is not quite as prolific as Early Golden Cluster, but surpasses in quality.

6. *White Creaseback*.—This variety yielded from May 29 until June 29, and produced our heaviest crop. It is very prolific, and gets its name from the formation of the pod.

7. *Southern Prolific*.—This also is a fine bearer, standing close to the White Creaseback in yield. It produces an abundant crop of long pods and seems to succeed better in the warmer weather than the other varieties. First picking June 1 and continued to bear until July 1.

8. *Carolina or Sewee*.—This small lima is quite prolific, but is not to be preferred to the larger sorts—June 21.

9. *Southern Willow Leaf*.—This is a moderately productive bean, quite similar to the Sewee, but did not yield well.

10. *Henderson's Bush Lima*.—This yielded remarkably well at Baton Rouge and Calhoun, but its pods were not, on the average, as good as the Thorburn's Dwarf Lima. It was only fair at Audubon Park.

11. *Thorburn's Dwarf Lima*.—This was the best Dwarf Lima at Baton Rouge, very prolific and of good quality.

12. *Burpee's Bush Lima*—was grown at Audubon Park with poor results.

Jackson Wonder.—This was almost a total failure at Baton Rouge and Audubon Park, but will be extensively tried this coming year on account of the extraordinary claims made for it.

The last planting of bush beans for the fall crop was made, at Baton Rouge, September 3, and until our first frost killed the vines pickings were made.

For this planting the results obtained show that Early Mohawk Six Weeks, Best of All and Pride of Newton are three of the best varieties for this purpose in Central Louisiana.

For North Louisiana the Early Mohawk Six Weeks also is one of the best to be followed by the pole varieties, Southern Prolific and Creaseback. In fact, everywhere throughout the

South, no garden is complete without the Lima or "Butter bean." The Willow Leaf and Carolina Lima beans are extensively grown all over Louisiana.

BEETS.

Full lists of varieties were planted, and in general the results were good. For Central Louisiana the following are recommended: The Edmunds Turnip, Long Blood and Eclipse.

For North Louisiana the Early Blood Turnip, Lentz and Long Blood.

For South Louisiana the Early Blood Turnip.

CABBAGE.

In this State cabbages are grown during the entire year. Starting in South Louisiana, they are planted in August and September, and marketed during the winter and early spring. An immense industry in this vegetable exists in and around New Orleans. The following varieties are grown for market.

Flat Dutch, Brunswick and Florida Head, from Creole seed.

At Baton Rouge, during the year, three sowings were made, with good crops from each. The common and very abundant pest of the cabbage, the cabbage worm (*Pieris rapæ*) can be effectually controlled by the use of paris green and lime, well mixed, and applied in form of a powder when the dew is on the plants, using one part of the former to one hundred of the latter. Later, when heads are forming, Pyrethium can be used at rate of one ounce to three gallons of water.

Twenty nine varieties were planted at Baton Rouge, which grew well and matured fairly good heads. The following table gives the varieties planted and the average weight of heads produced.



VARIETIES OF CABBAGE.

| NAME. | Average Weight. |
|--|---------------------|
| <i>Early.</i> | |
| Early Jersey Wakefield..... | 2 pounds, 12 ounces |
| Early Winningstadt..... | 5 " 7 " |
| Early Large Oxheart..... | 2 " 4 " |
| Extra Early Etampes..... | 3 " 2 " |
| Large Early Jersey Wakefield..... | 3 " 12 " |
| Oxheart..... | 3 " 14 " |
| True Early Jersey Wakefield..... | 4 " 12 " |
| <i>Medium.</i> | |
| Early Drumhead..... | 2 pounds, 11 ounces |
| Henderson's Early Summer..... | 5 " 12 " |
| Improved Early Summer..... | 7 " 2 " |
| Improved Early Drumhead..... | 8 " 8 " |
| Louisville Extra Early Drumhead..... | 5 " 8 " |
| Newark Early Flat Dutch..... | 4 " 12 " |
| Nonsuch..... | 6 " 9 " |
| Surehead..... | 6 " |
| <i>Late.</i> | |
| Bristol Late Flat Dutch..... | 5 pounds, 11 ounces |
| Crescent City Large Late Flat Dutch..... | 5 " 12 " |
| Green Globe Savoy..... | 2 " 8 " |
| Improved Late Flat Dutch..... | 5 " 15 " |
| Improved Large Late Brunswick..... | 6 " 9 " |
| Late Flat Dutch..... | 4 " |
| Large Late Flat Dutch..... | 8 " |
| Large Late Brunswick..... | 5 " 4 " |
| Perfection Drumhead Savoy..... | 3 " 15 " |
| Premium Late Flat Dutch..... | 9 " 15 " |
| St. Dennis..... | 5 " 4 " |
| Vandergaw..... | 3 " 5 " |
| Worldbeater..... | 5 " 13 " |
| Warren Stone Mason..... | 5 " 10 " |

It will be seen that, from this list, which agrees very closely to a similar test last year, a selection may be made to suit the purpose of any one interested.

For earliest varieties we recommend, for Central Louisiana, the Extra Early Etampes and Early Winningstadt. These form compact small heads, very early and popular.

Following these the Improved Early Summer, Surehead and Nonsuch have the preference. While Nonsuch also forms one of our very best general crop cabbages. It forms heads medium to large, and very compact, stands well and sells at sight.

For late crop the varieties of Flat Dutch, Brunswick and Drumhead are all large and desirable.

There is one class of cabbages, however, which is slighted greatly in all our gardens. It is the Savoy. Either the Green Globe Savoy or Perfection Drumhead Savoy, when once found in a garden will always be found there, as it forms heads which are tender and have a peculiar sweetness of their own.

At the North Louisiana Station twelve varieties were grown, and the following results obtained.

For early planting the Woods' Extra Early proved to be quite desirable, as also were the Early Winningstadt and Early Large York.

The Improved Early Summer followed with very fine, firm heads, making it one of the most desirable sorts grown on the Station.

A small fertilizer test was made at Baton Rouge in order to compare the result with last year, and study the needs of our soil in relation to the growth of cabbage. The following table gives the results for the years 1892 and 1893.

| No. | MANURE PER ACRE. | AVERAGE WEIGHT OF HEADS. | |
|-----|----------------------------------|--------------------------|--------------------|
| | | 1893. | 1892. |
| 1 | No Manure..... | 6 pounds, 2 ounces | 5 pounds, 8 ounces |
| 2 | 1,000 lbs. cotton seed meal..... | 7 " 13 " | 5 " 3 " |
| 3 | 300 " acid phosphate..... | 7 " 6 " | 6 " 7 " |
| 4 | 100 " sulphate of potash..... | 5 " 12 " | 5 " 1 " |
| 5 | { 1,000 " cotton seed meal... } | 9 " 4 " | 7 " 2 " |
| | { 300 " acid phosphate..... } | | |
| 6 | { 1,000 " cotton seed meal... } | 10 " 1 " | 6 " 12 " |
| | { 100 " sulphate of potash.. } | | |
| 7 | { 300 " acid phosphate..... } | 8 " 13 " | 6 " 14 " |
| | { 100 " sulphate of potash.. } | | |
| 8 | { 1,000 " cotton seed meal... } | 8 " 15 " | 6 " 15 " |
| | { 300 " acid phosphate..... } | | |
| | { 100 " sulphate of potash.. } | | |
| 9 | 200 " nitrate of soda..... | 8 " 12 " | 8 " 6 " |

In general the results agree with last year's record, and show the need of nitrogen and phosphoric acid for the production of the largest crops. They seem also to prefer cotton seed meal

for nitrogen rather than nitrate of soda, but the presence of phosphoric acid in the cotton seed meal probably made this difference as, in nearly every case, cabbage fed pure nitrate of soda had soft leafy heads.

CELERY

Has been cultivated only at Baton Rouge. Here plants of Perfection and White Plume varieties were obtained from Michigan, and an effort made to test two methods of raising celery.

1. The common method of planting in a row and hilling.
2. The method used by Prof. Massey, of the N. C. Experiment Station. Beds were prepared five feet wide and the plants set in these beds, in rows running crosswise at a distance of twelve inches from each other, and six inches in the row. As fast as needed only enough soil was drawn around the plants to keep them upright and bleached.

A heavy freeze killed nearly all the White Plume, and the record given below is for the Perfection alone:

| | |
|--|---------|
| Average weight of plants from row..... | 15. oz. |
| Average weight of plants from bed..... | 6.7 oz. |

The row yielded much finer plants than the bed, and was much easier to tend; but the quantity grown by the *bed* method would easily be triple the amount from row.

In the soil of these bluff-lands it will be found that the individual row system will allow better culture and less packing of the soil around the plants. It is believed that this small record shows, among other things, the effect of such packing, as is always the case after our heavy rainfalls.

A list of home-raised plants, along with commercial plants, is planned for another year and the results to follow will probably be more conclusive. The difficulty attending the transplanting of plants in September, when we usually have our most extended drouth, is not easily overcome. But the use of Spanish moss, so abundantly found, will aid us materially in this matter as well as bleaching.

EXPERIMENTS WITH GARDEN CORNS, LOUISIANA SUGAR EXPERIMENT STATION, NEW ORLEANS, LOUISIANA.

Little or no attention has been given to the growing of sugar corns for table use in Louisiana. The following experiments were made to test the adaptability of this class of corns, together with the well known "Early" and "Extra Early Adams" to our soils and climate. They were planted in the latter part of February and began to ripen early in May, furnishing a succession of roasting ears well into June. Twenty six varieties were tested with the following results. They were grown in four feet rows and six inches apart in the drill :

No. 1. *Early Yellow Cory*.—Small ears with large grain and not well filled; badly affected with rot and weevil; early variety.

No. 2. *Extra Early Marblehead*.—Small ears with small, smooth grain and poorly filled; badly affected with rot and weevil; early variety.

No. 3. *Northern Pedigree*.—Small ears, very well filled; medium size; nearly smooth grain; early variety, and not much affected with rot and weevil.

No. 4. *Early Minnesota*.—Ears medium in size and well filled; large grains; no weevil, but affected with rot; early variety.

No. 5. *Perry's Hybrid*.—Large ears; very well filled with large grains; slightly affected with rot and weevil; early variety.

No. 6. *Early Narragansett*.—Ears small and poorly filled with red grains; badly affected with weevil and rot.

No. 7. *Extra Early Adams*.—Very small; poorly filled ears, with medium sized smooth white grain; an early variety and not affected with rot nor weevil.

No. 8. *Early Golden Yellow*.—Small ears; very well filled with yellow grain; very badly affected with rot and weevil.

No. 9. *Shaker's Early*.—Large ears; very well filled; medium early; badly affected with rot; no weevil.

No. 10. *Crossby's Early*.—Ears medium in size and well filled; not very early and badly affected with rot; no weevil.

No. 11. *Pee and Kay*.—Medium sized ear and very well filled, with large grains; not an early variety; rotted badly, but no weevils.

No. 12. *Potter's Excelsior*.—Very small ears and poorly filled; late variety and almost entirely destroyed with rot and weevil.

No. 13. *Moore's Early*.—Small ears, but well filled; late variety and rotted badly; no weevil.

No. 14. *Amber Cream*.—Very small ears and poorly filled with amber colored grains; not very early and affected with rot.

No. 15. *Early Adams*.—Ears small but well filled; grain smooth and white; but slightly affected with rot and weevil; an early variety.

No. 16. *Excelsior*.—Small ears; poorly filled; early variety; rotted badly.

No. 17. *Large Eight Rowed*.—Small slender ears, with large grain; poorly filled; late variety; but little affected with rot and weevil.

No. 18. *Asylum*.—Ears small and poorly filled; not a very early variety; badly rotted and weevil eaten.

No. 19. *Triumph*.—Ears medium in size and well filled; late variety; but little affected with rot and weevil.

No. 20. *Hickox*.—Ears medium in size and well filled; but few weevils; affected with rot; late variety.

No. 21. *Stowell's Evergreen*.—Small, well filled ears; badly rotted and weevil eaten; medium; early variety.

No. 22. *Early Mammoth*.—Large, well filled ears; but little affected with rot and weevil; early variety.

No. 23. *Black Mexican*.—Ears medium in size and very well filled with black grains; but little affected with rot and weevil; late variety.

No. 24. *Ne Plus Ultra*.—Very small ears but well filled; rotted and weevil eaten; early variety.

No. 25. Late Mammoth.—Medium sized ears; very well filled with large grains; rotted and weevil eaten; late variety.

No. 26. Egyptian.—Ears medium in size and poorly filled; not much affected with rot or weevil; late variety.

CUCUMBERS.

The work in cucumbers includes variety tests, at all of the stations, and comparative test of *Hill* and *Row* culture using fertilizers, at Baton Rouge. Following is a list of varieties.

PLANTED MARCH 9—AT BATON ROUGE.

| VARIETY. | EARLINESS. | AVERAGE WEIGHT. |
|---------------------------------|------------|-----------------|
| Early Cluster..... | May 2 | 6.8 ounce. |
| Early Frame..... | " 8 | 5.9 " |
| Florida Emerald..... | " 10 | 7.8 " |
| Improved Early White Spine..... | " 22 | 8.4 " |
| Japan Climbing..... | June 6 | 10.6 " |
| Long Green Turkey..... | May 21 | 12.2 " |
| New Orleans Market..... | " 24 | 6.9 " |

The most prolific varieties at Baton Rouge were Early Cluster and Early Frame, but are only good for small pickles.

The New Orleans Market and Improved Early White Spine gave handsome crops of the finest cucumbers for table use and they also stood longer before becoming unfit for the table.

The New Orleans Market withstood the attacks of disease better than any other variety. At the North Louisiana Experiment Station eight varieties were grown with no failures, those giving the most satisfaction were Long Green Turkey, Early Cluster, New Orleans Market and Early White Spine.

At Audubon Park five varieties were grown with New Orleans Market in the lead, followed by Early White Spine.

FERTILIZER EXPERIMENTS AT BATON ROUGE.

In carrying out this trial, the Florida Emerald variety was used. It is a prolific and desirable variety and sells well.

The hills were planted 8 by 10 feet, and the rows were so arranged that a space of ten feet of the row allowed the same

numbers of square feet as two of the hills. Two plants were left in each hill, and one plant per foot in each row.

| MANURE USED PER ACRE. | | HILLS. | | ROWS. | |
|-----------------------|-----------------------------------|---------------|-----------------|---------------|-----------------|
| | | No. of Fruit. | Average Weight. | No. of Fruit. | Average Weight. |
| 1. | 1000 lbs. cotton seed meal..... | 44 | 9.1 ozs. | 70 | 7.5 |
| 2. | 300 lbs. acid phosphate..... | 71 | 7.3 " | 71 | 8.9 |
| 3. | 100 lbs. sulphate of potash..... | 93 | 7.3 " | 61 | 9. |
| 4. | No manure..... | 53 | 9.1 " | 95 | 7. |
| 5. | { 1000 lbs. cotton seed meal..... | 80 | 9.3 | 62 | 9.4 |
| | { 300 lbs. acid phosphate..... | | | | |
| 6. | { 1000 " cotton seed meal..... | 55 | 10.4 | 48 | 7. |
| | { *100 " sulphate of potash..... | | | | |
| 7. | { 300 " acid phosphate..... | 137 | 8.7 | 129 | 7.9 |
| | { 100 " sulphate of potash..... | | | | |
| 8. | { 1000 " cotton seed meal..... | 132 | 12. | 124 | 6.1 |
| | { 300 " acid phosphate..... | | | | |
| | { 100 " sulphate of potash..... | | | | |

On the whole we could see no particular advantage of the row over the hill method, but in both cases plats fed with phosphoric acid Nitrogen, gave material gains.

CORN SALAD AND ENDIVE.

These vegetables were grown at Baton Rouge and Calhoun, making good growth, but were little used.

The Green Curled Endive, at both stations, was preferred to any other variety.

EGG PLANTS.

A number of varieties were sown, but there seems to be no variety that excels the New Orleans Market. Although not quite so early as the Dwarf Purple, it, as well as the New York Improved, is a better cropper.

There is absolutely no sale for a white variety. The popular idea demands a colored fruit, and although fine white specimens

were offered for sale, none were sold. The New Orleans Market is almost universally grown in this State.

LEEK.

The only variety grown at the Stations of this vegetable was the *Large American Flag*. It forms large uniform sized stalks, and is extremely mild in its characteristic flavor.

LETTUCE.

There is always a demand for good Lettuce, and it may, with care, be grown over a large portion of the year.

Many sowings can be made during the year all over the State.

Some difficulty was experienced in the August and September sowings in some parts of the State, both in regard to the dry weather and the attack of ants. The drought can be remedied by frequent watering and the use of moss to shade the row and retain moisture, while corn meal calls the attention of the ants until seed have germinated and grown beyond their needs.

Following is a list of Lettuce.

1. *New Orleans Passion*.—This is a large growing variety, forming immense solid heads, and is our most valuable variety for autumn sowing.

2. *Perpignan*.—A medium sized head, not solid, but one of the best for late spring planting.

3. *Improved Royal Cabbage*.—A good late variety which forms good sized light colored heads; very popular.

4. *New Orleans Market*.—A medium grower of fair quality.

5. *Brown Dutch Cabbage*.—A failure.

6. *Early Cabbage or White Butter*.—This is our earliest variety, and one that forms small, but fine heads.

7. *White Paris Cos*.—This forms peculiar long drawn off heads, and is not popular here, although it is a fine plant.

8. *Large Light Green Royal*.—A large light colored, fine headed variety which comes into season rather late and not much unlike the Improved Royal Cabbage.

9. *Drumhead Cabbage*.—A curled leaved variety, forming large attractive heads of good flavor.

10. *Trocadero*.—This is a rather tender variety; light colored and forming a leafy head, which is very succulent. Excellent in the home garden.

At Baton Rouge the following varieties gave the most satisfactory results :

For early use : The Early Cabbage or White Butter. The Improved Royal Cabbage and New Orleans Passion will then follow with an abundance of fine crisp heads. The New Orleans Passion was the best also for fall planting.

At Audubon Park the New Orleans Improved Passion and Drumhead Cabbage gave best results.

The following is a list of Lettuce grown on the North Louisiana Experiment Station, with results :

| VARIETY. | Seedsman. | Date of Planting. | Date of Germinating | Ready for Market. | Remarks, Etc. |
|---------------------------------|--------------------|-------------------|---------------------|-------------------|--|
| White Paris Cos. | Fro'scher. | Feb. 1 | Feb. 8 | M'ch 16 | { Very Fine. Always gives satisfaction |
| Drumhead Cabbage | " | Feb. 1 | Feb. 9 | M'ch 16 | |
| Brown Dutch Cabbage. | " | Feb. 1 | Feb. 10 | M'ch 22 | { Gave satisfaction. Late. |
| Improved N. O. "Passion." | " | Feb. 1 | Feb. 8 | M'ch 15 | { Early. Result satisfactory. |
| Early Cabbage. or White Butter. | " | Feb. 1 | Feb. 10 | M'ch 28 | { Result satisfactory. |
| Perpignan. | " | Feb. 1 | Feb. 10 | M'ch 18 | { Result satisfactory. |
| New Italian. | " | M'ch 21 | M'ch 27 | April 18 | { Failed to give satisfaction. |
| Improved Hanson. | Livingston's Sons. | M'ch 21 | M'ch 27 | April 16 | { Result Satisfactory. |
| Butter Cup. | " | M'ch 21 | M'ch 26 | April 18 | { Failed to head. Poor growth. |
| Blonde Beauty. | " | M'ch 21 | M'ch 26 | April 17 | { Gave satisfaction. Stood drought well. |
| New "Trianon" or Celery. | " | M'ch 21 | M'ch 27 | April 16 | { Belongs to the "Cos" class Satisfactory. |

MUSTARD.

This plant makes one of the most popular dishes furnished throughout the South. "Greens" being universally found on

every man's table. It is grown from September until June—and grows vigorously in nearly all localities.

The varieties tried this year were :

1. *Black*—This has small leaves and does not make a saleable product.

2. *Tuberous Rooted*—An inferior leaved variety.

3. *Southern Curled*.—This yields an abundance of rather long curled leaves, very crisp and desirable.

4. *Chinese Broad Leaved*.—Like the Southern Curled it is a heavy producer of leaves, which are very much broader.

These two last named varieties are those used by all our gardeners. The Southern Curled probably being the most popular.

MUSK MELONS.

This popular plant is grown universally and on a very large scale near our cities. The variety growing best around Baton Rouge, is one called *Thé Baton Rouge Market*, which is probably another name for *The New Orleans Market* grown almost exclusively around New Orleans, as they are very similar. These two varieties seem to be the only ones which show any resistance to the fungous disease prevalent in South and Central Louisiana, all the Northern varieties being more or less affected by it.

VARIETIES.

1. *Osage*.—First fruit ripened June 26. Average weight of melons, 2 lbs 14 ounces. A rather small and comparatively smooth melon of good flavor. Is not attractive enough to sell well.

2. *Netted Citron*.—First fruit ripened June 22. Average weight of melons 2 lbs 2 ounces. This variety became affected with the *blight* early in the season, and soon succumbed. Failure at Audubon Park.

3. *Netted Nutmeg*.—First fruit ripe June 20. Average weight 2 lbs 1 ounce. Generally it is much smaller than *Netted*

Citron, but this variety also succumbed early to the *blight* and hence did not yield one-half a crop. Failure at Audubon Park.

4. *Early White Japan*.—This variety became diseased before fruit set and yielded only a few inferior specimens. It is an early sweet variety.

5. *Persian or Casaba*.—First fruit ripened June 23. Average weight of fruit $6\frac{1}{2}$ lbs. This is one of our largest varieties, oblong shape and fine quality. It is better for home use than for market, as it does not stand handling well. It also became diseased and finally killed by *blight*.

6. *Emerald Gem* (Burpee).—First fruit ripe June 20. Average weight $1\frac{1}{2}$ lbs. This is an excellent little gem for the home garden, very sweet, prolific, and having a beautiful flesh.

7. *New Orleans Market*.—First fruit ripened June 26th. Average weight of fruit $4\frac{1}{2}$ lbs. This and the following variety are extensively raised all around Baton Rouge and New Orleans. They are of good size and stand shipment well. They are rather rough skinned and have an excellent flavor.

8. *Baton Rouge Market* (Heroman).—This variety has been grown around Baton Rouge for years and resembles much the New Orleans Market. First fruit ripened July 5th. Average weight of fruit $3\frac{1}{2}$ lbs. It is later and smaller than New Orleans Market, but its flesh and flavor are similiar. It also withstands well the attacks of the *blight*.

The two varieties one may safely grow at present and not fear serious ravages of disease are the Baton Rouge Market and the New Orleans Market. Yet should these be grown successively on the same land the disease would be feared. However during the coming season definite knowledge of it and its treatment will be striven for. The free use of a good fungicide is beneficial and necessary to obtain relief.

MUSKMELONS AT THE NORTH LOUISIANA EXPERIMENT STATION.

Twelve varieties were grown during the past season with a great deal of satisfaction, the soil being well adapted to their culture. Following is a record of the varieties grown :

TEST OF VARIETIES.

| NAME OF VARIETY. | Seedsman. | Date, of Planting | Germinated. | First Blooms. | First Ripe Fruit. | Remarks, Etc. |
|---------------------------|---|-------------------|-------------|---------------|-------------------|--|
| Osage..... | R. Frotscher, New Orleans, La. | May 10 | May 15 | June 12 | July 18 | { Ready for market 68 days after planting Early and good. |
| Persian or Cassaba..... | do | May 10 | May 15 | June 14 | July 27 | { Ready for market 77 days after planting. Has not succeeded well with us. |
| New Orleans Market..... | do | May 10 | May 15 | June 12 | July 27 | { A good and reliable market variety. Early, but failed to give satisfaction with us |
| Woods Perfection..... | T. W. Wood & Son, Richmond, Va. | May 10 | May 15 | June 10 | July 24 | { Quite similar to Frotscher's N. O. Market. |
| Champion Market..... | do | May 10 | May 15 | June 12 | July 28 | { Succeeded well with us. (New) |
| Jersey Belle..... | Johnson & Stokes, Philadelphia, Pa. | May 10 | May 15 | June 10 | July 27 | { New. 1892. |
| New "Surprise"..... | do | May 10 | May 15 | June 12 | July 27 | { A new variety from Mexico. Very Good. |
| New Giant..... | A W. Livingston's Sons, Columbus, Ohio. | May 10 | May 15 | June 14 | July 27 | { Very early, but failed to give satisfaction. |
| • Extra Early Hackensack. | do | May 10 | May 14 | June 8 | July 15 | { New. 1892. |
| "Columbus"..... | do | May 10 | May 15 | June 10 | July 30 | { Succeeded well with us. |
| Market Nut Mcg..... | do | May 10 | May 15 | June 12 | July 30 | { Imported by U. S. Dep't of Agriculture in 1892 from Teheran. Failed to produce fruit. |
| Isphahan..... | U. S. Dep't Agriculture, Washington, D. C. | May 10 | May 15 | June 14 | Failed. | |

The following varieties of cantaloupes were grown at Sugar Experiment Station, Audubon Park, New Orleans, La :

Netted Nutmeg, New Orleans Market, Ispahan, Menenneu, Early Jenny Lind, Nixon, Netted Green Citron, Montreal Market, Emerald Green, Banquet, Winter Pineapple, Delmonico and Hackensack.

They were all failures, due to the destructive fungous, except New Orleans Market, which was a partial success only. The Ispahan and Menenneu were imported varieties.

WALERMELONS.

In the growing of melons at Baton Rouge, considerable difficulty was experienced in avoiding the ravages of the twelve-spotted beetle. Insecticides were used freely, but the only thing in any way effectual was the use of gauze covered boxes.

Following is a list of varieties :

1. *Lone Star*.—First ripened June 20, at Baton Rouge. Average weight of fruit, twelve and one-half pounds. This is a new variety of merit, having dark green mottled skin ; oblong in shape ; pink flesh and whitish amber seed. Very sweet and desirable. Did well at Audubon Park.

2. *Ice Cream*.—This is an old standard white-seeded variety and quite productive. It is very sweet and is grown extensively ; selling well. First fruit ripe June 24, at Baton Rouge ; average weight of fruit, eleven pounds, fourteen ounces. Did well at Audubon Park.

3. *Pride of Georgia*.—Did not do well this year ; generally it is a desirable large sort. First ripened June 23 ; weight, ten pounds. It is not unusual to obtain specimens of this melon weighing thirty pounds, with ordinary care. Did very well at Audubon Park.

4. *Kolb's Gem*.—First to ripen June 26, at Baton Rouge ; average weight of fruit, fourteen pounds. This is one of the best shipping melons, as it stands handling so well, having such a

tough skin. It possesses solid red flesh, black seeds and quality not by any means the best. Did fairly well at Audubon Park.

5. *Florida Favorite*.—First ripe June 23, at Baton Rouge; average weight, twelve and one-half pounds. This is one of the most desirable large melons for the home garden. It is long and round; skin striped light and dark green; flesh, deep pink; seeds white with dark points; very sweet. Did finely at Audubon Park.

6. *Mammoth Iron Clad*.—First ripe June 26, at Baton Rouge; average weight of fruit, twenty-one pounds, eleven ounces. A very large melon, oblong shape and mottled skin, and fair quality. Not a success at Audubon Park.

7. *Seminole*.—First ripe June 24, at Baton Rouge; average weight, ten and one-half pounds; color, light green; long; flesh pink, with distinct markings. A good producer and of fine quality. Good at Audubon Park.

8. *Rattlesnake*.—First to ripen July 7, at Baton Rouge; weight, thirteen pounds. A standard old variety, having rather large stripes; of good quality and stands well as a shipper. Excellent at Audubon Park.

9. *Last Resort*.—A new melon obtained from Mr. Stalcopp, of Nairn, La. First ripe July 15, at Baton Rouge; average weight, nineteen pounds. It has a fine appearance, having dark skin, striped with light; flesh red; seeds black; flavor very good. Probably the most pleasant of the list. Not grown at Audubon Park.

10. *Dixie*.—First fruit ripe July 10, at Baton Rouge; average weight, fifteen pounds. This is a very desirable melon and will probably take the place of the Kolb's Gem, on which it seems to be a decided improvement. It resembles it rather closely, but possesses better texture and flavor, while still holding to the tough skin.

11. *Jones*.—Grown only at Audubon Park. A large green melon of excellent merits.

12. *Augusta Sugar Loaf*.—An oblong melon of large size and fair quality. Grown only at Audubon Park.

13. *Scaly Bark*.—Grown only at Audubon Park, with unsatisfactory results.

14. *Fordhook*.—A new variety. Unsuccessful at Audubon Park.

The following twelve varieties, grown at Calhoun, are given with results :

TEST OF VARIETIES.

| NAME OF VARIETY. | Seedsman. | Date of Planting. | Germinated. | First Blooms. | First Ripe Fruit. | Remarks, Etc. |
|--------------------------|--|-------------------|-------------|---------------|-------------------|------------------------------------|
| Seminole | R. Frotzcher, New Orleans, La. | May 10 | May 15 | June 18 | July 24 | A good early market melon. |
| Kolb's Gem..... | do | May 10 | May 15 | June 18 | July 24 | Good as a market melon. |
| Lone Star..... | do | May 10 | May 15 | June 15 | July 22 | Has never given much satisfaction. |
| Ice Cream..... | do | May 10 | May 15 | June 19 | July 25 | Has never given satisfaction. |
| Florida Favorite..... | do | May 10 | May 15 | June 19 | July 20 | Good. |
| Mammoth "Iron Clad" .. | do | May 10 | May 15 | June 19 | July 30 | Not satisfactory. |
| Augusta Rattlesnake..... | Alexander Drug and Seed Company, Augusta, Ga. | May 10 | May 15 | June 18 | July 30 | Has given satisfaction. |
| Florida Favorite..... | do | May 10 | May 15 | June 18 | July 20 | Result: satisfactory. |
| Augusta Sugar Loaf..... | do | May 10 | May 15 | June 18 | July 23 | Result: satisfactory. |
| Pride of Georgia..... | do | May 10 | May 15 | June 18 | July 23 | Has given entire satisfaction. |
| Cuban Queen..... | do | May 10 | May 15 | June 20 | July 28 | Has never given satisfaction. |
| Joe Johnson..... | T. W. Wood & Son, Richmond, Va. | May 10 | May 15 | June 18 | July 30 | Result: satisfactory. |

FERTILIZER EXPERIMENTS IN WATERMELONS AT BATON ROUGE.

| Number. | KIND USED PER ACRE. | No. of Fruits. | Date. | Average Weight. | |
|---------|--|----------------|---------|-----------------|------|
| | | | | lbs. | ozs. |
| 1 | 1000 lbs. cotton seed meal..... | 11 | June 29 | 11 | 4 |
| 2 | 300 " acid phosphate..... | 7 | July 1 | 22 | 4 |
| 3 | 100 " sulphate of potash..... | 6 | July 7 | 21 | 4 |
| 4 | No manure..... | 5 | July 12 | 14 | 14 |
| 5 | { 1000 lbs. cotton seed meal..... } | 9 | June 29 | 15 | 4 |
| | { 300 " acid phosphate..... } | | | | |
| 6 | { 1000 " cotton seed meal..... } | 10 | July 15 | 13 | 12 |
| | { 100 " sulphate of potash..... } | | | | |
| 7 | { 300 " acid phosphate..... } | 12 | June 26 | 16 | 8 |
| | { 100 " sulphate of potash..... } | | | | |
| 8 | { 1000 " cotton seed meal... } | 8 | July 3 | 14 | 3 |
| | { 300 " acid phosphate.... } | | | | |
| | { 100 " sulphate of potash } | | | | |
| 9 | The same in 3 applications..... | 12 | July 3 | 11 | 9 |
| 10 | { The same applied in one application and in a } | 9 | July 12 | 12 | 1 |
| | { radius of 2½ feet..... } | | | | |
| 11 | The same in a radius of 4 feet..... | 13 | July 12 | 12 | 0 |

The variety used in these experiments was the Dixie. Considerable care was taken and satisfaction had at the conclusion, from the fact that this was the first season a full crop of watermelons has been harvested on account of midnight marauders.

Except when specified, the fertilizing elements were applied and thoroughly incorporated with the soil of the hill at time of planting. It will be noticed in looking over this record that in every case fertilizers increased the numbers of fruit, although not always increasing the average weight, and that where phosphoric acid was applied not only was the average weight increased but the tendency was to mature earlier. This only emphasizes the teaching of nearly every fertilizer test at this station; that is, that our soil needs applications of phosphoric acid more than any other one element.

This agrees in the main with the remnants of our watermelon experiments last year, and we intend to repeat them again, in order to make sure of these points. In 9, 10 and 11, growth was kept up longer and the melons were longer in maturing, the fertilizer being applied every four weeks. We see no advantage

in this, especially as it requires great care in handling the vines when applying the last dressing.

ONIONS.

Onions have been worked with only in a small way, few varieties used and few experiments made. Seeds were sown the last of August, and great care taken in supplying moisture and shade during their early growth.

Following is a list of varieties :

1. *Giant White Italian*.—Average weight, 5½ ozs. A large sized flat white onion, but not a good grower. Quite mild.

2. *Giant Rocca of Naples*.—Average weight, 5 7 ozs. A very large red globe shaped onion. Popular in the north ; not desirable here.

3. *Prize Taker*.—Average weight, 8 ozs. Another large globe shaped onion ; almost white in color and very mild in flavor.

4. *Mammoth Pompeii*.—Average weight, 5 5 ozs. A large dark onion ; not desirable.

5. *New Extra Early Barletta*.—Average weight, 4 ozs. An early silvery white onion. Excellent for early use and pickles. Very attractive in appearance, and mild.

6. *Neapolitan Maggiajola*.—Average weight, 6 ozs. A large flat white variety. Quite similar to Giant White Italian.

7. *White Bermuda*.—Average weight, 5 ozs. A good sized flat white onion of excellent quality, and is one of the three recommended for this locality.

8. *Red Bermuda*.—Average weight, 4½ ozs. This differs from the White Bermuda only in color. They both have grown well on the grounds, and together with the next variety, are preferred.

9. *Louisiana or Creole*.—Average weight, 2½ ozs. Not a strong flavored variety, but more so than Prize Taker. A good sized partly globe shaped variety of light red color. Frotscher says its origin is uncertain, but it evidently has been derived from some of the Italian onions. It is one which he recom-

mends, and from its growth on the grounds it seems to be the most desirable of our list. It is used almost exclusively by the truck growers of South Louisiana.

The above notes were obtained from the rows when the seed was sown for permanent crop. The transplanting of onions seems to be an old practice here, and following is found a record of three varieties thus treated.

TRANSPLANTING ONIONS AT BATON ROUGE.

| VARIETY. | Average Weight. | Earliness. |
|---|-----------------|------------|
| Red Bermuda, transplanted | 4.5 ounces | April 1 |
| Red Bermuda, not transplanted, | 4.5 " | April 27 |
| White Bermuda, transplanted | 5.5 " | April 15 |
| White Bermuda, not transplanted | 5 " | April 30 |
| Louisiana or Creole, transplanted | 3 " | April 25 |
| Louisiana or Creole, not transplanted | 2.5 " | April 25 |
| Prize Taker, transplanted | 7.8 " | May 25 |
| Prize Taker, not transplanted | 8 " | May 30 |

It will be seen by this that in two cases the average weight was increased, and also the bulk matured earlier, besides this the nearly perfect stand, insured by transplanting, gave a much increased total yield per given length of row. These seeds were sown the last of August, and the plants transplanted when less than one-fourth inch in diameter.

ONIONS AT THE NORTH LOUISIANA EXPERIMENT STATION.

Five varieties of onions were planted, but very poor stands were obtained of most of them. The poorest stand and the smallest onions were gathered from the following: Louisiana or Creole, Red Bermuda. The best stand obtained and the largest onions gathered were from Prize Taker and Mammoth Silver King.

American Extra Early Pearl came up to a good stand and produced fine onions, but were watery, almost destitute of flavor and failed to keep long.

No experiments were made with onions at Audubon Park.

PARSLEY.

Several varieties of this vegetable were grown, but our preference is the Moss Curled and the Double Curled. At the North Louisiana Experiment Station the Double Curled and Plain were grown, the latter standing drought the better. It is quite useful in garnishing dishes and finds a place in every garden.

PEAS.

At Baton Rouge three general sowings of peas were made during the year, in February, March and September 1st, respectively. A full list of varieties was obtained from Frotscher, of New Orleans; Heroman, of Baton Rouge, and Peter Henderson, of New York. Following may be found a few notes concerning these varieties with recommendations:

EARLY VARIETIES.

1. *Alaska*.—(Frotscher). This was our very earliest pea, yielding abundantly, and having a fine quality—two to three feet.

2. *American Wonder*.—(Frotscher). An old standard sort, being very early and dwarf. Excellent for a succession in the house garden. Only fair at Audubon Park.

3. *Blue Beauty*.—(Henderson). A good growing, early, dwarf, smooth pea, used for house and market.

4. *Chelsea*.—(Henderson). A bushy, dwarf variety, which became attacked by mildew and was almost a failure. The pods obtained, however, were very large, well filled and the quality excellent.

5. *First and Best*.—(Frotscher). A good early productive sort, two to three feet, not prolific, but very early at Audubon Park.

6. *Improved Daniel O'Rourke*.—(Henderson). An extra early variety, two to three feet, but did not crop well on our grounds.

7. *Little Gem*.—(Frotscher). Like the American Wonder, it is an excellent dwarf variety for early peas and a succession, requiring no support.

8. *Laxton's Alpha*.—(Frotscher). One of the very best early sorts, growing from two to three feet and yielding a very sweet-flavored product.

9. *Philadelphia Extra Early*.—(Heroman). This came into bearing a few days after the Alaska, which it resembles much.

10. *Premium Gem*.—(Henderson). This variety also is good for a succession of dwarf peas, being not only early and productive but having an extra good quality.

11. *Tom Thumb*.—(Henderson). An old, very dwarf variety, productive and of good quality.

12. *The Admiral*.—(Henderson). Almost second early in season. A large vigorous grower, three to four feet, and very productive, quality not the best.

VARIETIES MEDIUM IN SEASON.

1. *Abundance*.—(Henderson). This variety comes into bearing soon after the Admiral and is a good yielder. It is exceedingly branchy and, consequently, bears well. Three to four feet.

2. *Horsford's Market Garden*.—(Henderson). This variety was our best for second early crop, bearing an abundance of medium sized, well filled pods. It grows from three to four feet; quality, the best.

3. *McLean's Advance*.—(Frotscher). A pea of medium quality, growing two to three feet, and not over productive.

4. *Melting Sugar*.—(Henderson). A sweet, tall variety, having edible pods, which are broad and brittle. Its season is soon before the Champion of England.

5. *Petit Pois*.—(Henderson). A failure.

LATE VARIETIES.

1. *American Champion*.—(Henderson). This is a new tall pea of considerable merit, being a producer of very large peas of very good quality, bears just before Champion of England.

2. *Black Eyed Marrowfat*.—(Frotscher). A tall, rich pea, very popular for market, and one of our best varieties for late fall planting.

3. *Champion of England*.—(Frotscher). Like the above, this popular pea is universally planted, and is the heaviest producer of late peas we have. Excellent at Audubon Park.

4. *Everbearing*.—(Henderson). A tall pea, which did not prove to be productive or desirable this season.

5. *New Very Dwarf Sugar*.—(Henderson). Contrary to name and expectations, this proved to be a very tall sugar variety, almost identical with Tall Sugar, but not as productive.

6. *Tall Sugar*.—(Frotscher). Not unlike the above, five feet, productive and sweet.

7. *Telephone*.—(Henderson). This is a very tall, remarkably large pea, of good quality, and is well adapted for a late market variety. It seems to be more easily attacked by mildew than the Champion of England.

8. *White Marrowfat*.—(Frotscher). Similar in every way, in growth and productiveness, to the Black Eyed Marrowfat, and is excellent for fall planting.

Of the foregoing varieties, those which have recommended themselves to the Station for general planting in Central Louisiana are .

For early crops.—Alaska, Alpha, Wonder and Little Gem.

For medium season.—Horsford's Market Garden, Abundance.

For late and fall crop.—Champion of England, the Marrowfats and Telephone. We find no better pea for an early succession than the Alaska, which also, together with the First and Best produce our best crops from March plantings.

PEAS AT THE NORTH LOUISIANA EXPERIMENT STATION.

Following is a record of peas grown at Calhoun :

PEAS.—TEST OF VARIETIES.

| Variety. | Seedsman. | Date of Plant- ing. | Germinated. | Bloomed. | Marketable. | Remarks, Etc. |
|-------------------------------|--|------------------------|-------------|----------|-------------|--|
| Early Washington | R. Frotcher, New Orleans, La. | Feb 1 | Feb 15 | April 1 | April 20 | { But very few seed germinated; what did was so badly injured by cold weather that they failed to mature a crop. |
| Cleveland's Alaska | do | Feb 1 | Feb 15 | April 5 | April 24 | |
| Early Tom Thumb | do | Feb 1 | Feb 14 | March 20 | April 10 | Failed. |
| Extra Early or First and Best | do | Feb 1 | Feb 14 | March 25 | April 18 | Very early, but never does well. |
| American Wonder | do | March 11 | March 23 | April 15 | April 27 | Quite early, but succeeds poorly. |
| Carter's Telephone | do | March 11 | March 22 | April 27 | May 15 | Dwarf, has never succeeded at the station. |
| Laxton's Alpha | do | March 11 | March 22 | April 10 | April 30 | Result satisfactory; mid-season. |
| Dwarf Sugar | do | March 11 | March 21 | April 29 | May 15 | Early; result satisfactory. |
| McLean's "Advancer" | do | March 11 | March 23 | April 20 | May 6 | Never fails to give satisfaction. |
| Laxton Prolific Long Pod | do | March 11 | March 22 | April 27 | May 14 | Early; gave satisfaction. |
| Eugenie | do | March 11 | March 22 | April 25 | May 10 | Mid-season; gave satisfaction. |
| Dwarf Blue Imperial | do | March 11 | March 22 | April 29 | May 24 | Early; gave satisfaction. |
| McLean's "Little Gem" | do | March 11 | March 22 | April 15 | April 30 | Mid-season; result satisfactory. |
| Carter's Stratagem | do | March 11 | March 22 | April 12 | April 26 | Early; unsatisfactory. |
| Large White Marrowfat | do | March 11 | March 22 | May 10 | May 23 | Early; unsatisfactory. |
| Black-eyed Marrowfat | do | March 11 | March 22 | May 9 | May 22 | Highly satisfactory; mid-season; late. |
| Champion of England | do | March 11 | March 22 | April 30 | May 24 | Highly satisfactory; mid-season; late. |
| French Canner | Com. of Agriculture, Baton Rouge, La. | March 11 | March 22 | April 27 | May 16 | Satisfactory; mid-late season. |
| Shopshire Hero | Johnson & Stokes, Philadelphia. | March 11 | March 22 | May 2 | May 24 | Highly satisfactory; mid-season. |
| New "Jumbo" | A. W. Livingstons' Son, Columbus, Ohio. | March 21 | March 31 | ----- | ----- | New; unsatisfactory; mid-season. |
| | | | | | | New, 1892; failed to do anything. |

Remarks.—Extended notes were kept regarding these varieties, from which we would recommend the following varieties as worthy of attention :

For early use : Laxton's Alpha and McLean's Advancer.

For general, mid-season and late crops : Large White Marrowfat, Black-eyed Marrowfat, Dwarf Sugar and Champion of England.

We received through the Commissioner of Agriculture a package of Jackson's "Snow White" Field Pea. It proved to be a variety of common pole bean, of vigorous growth. Pods were small, about six inches long ; round ; smooth and having small pure white seeds. Productive and of good quality.

PEPPERS.

At Baton Rouge and Audubon Park, of the many varieties grown, the following are recommended : Sweet Spanish, Bell and Long Red Cayenne.

At Calhoun the following record was obtained :

The eight following varieties of pepper were grown in seed-beds and transplanted late in the spring, after all danger of frost was past :

Long Red Cayenne.—Strong, upright and very productive. Fruits from three to six inches long ; slender ; pointed ; crumpled and curled ; deep red color ; seed numerous. Mostly used for sauce and garnishing.

Bell or Bull Nose.—Plants two to three feet high ; upright and hardy ; moderately productive ; fruits large, two inches long ; oblong shape ; surface crumpled and depressed at apex ; color dark red ; seeds few ; badly inclined to rot. Mostly used for pickling ; mild flavor.

Bird Eye.—Plants two to three feet high ; strong, upright and symmetrical ; fruit small ; round ; dark red and solid ; seeds numerous ; flavor very hot. Adapted for sauce making ; very hardy and prolific.

Sweet Spanish or Monstrous.—Dwarf ; strong and hardy ;

fruits large, three to four inches long; quality good; mild; used as a salad when green; unproductive.

Tobasco.—Has tall, beautiful bushes; fruit borne in clusters at the end of the branches; very strong and hardy; small and pointed; flavor very hot; used altogether for sauces; very productive.

Golden Dawn.—Small and straggling, but healthy and productive; fruits large and somewhat resemble the Bell in shape; color bright yellow; flavor mild; used as a salad, and for pickling.

Celestial.—Two to three feet high; very hardy and productive; a very ornamental variety; flavor mild; pickling or garnishing.

IRISH POTATOES.

Good crops of spring potatoes were obtained at all the Stations, but the fall crops were either destroyed or very much injured by the prolonged drought. Early in March, at Baton Rouge, the ground was prepared and seed planted. The following table gives the yields and dates of maturing, as well as the yield of the fall crop of the same varieties.

After digging the spring crop the seed was placed under the bench, in the propagating house, to become thoroughly mature, and later on was covered lightly with soil to induce sprouting. In the latter part of August the fall crop was planted, but as the rainfall in September was very light, the start was very slow and the crop injured greatly.

IRISH POTATOES—VARIETIES.

| Number. | VARIETIES. | Date of Maturity. | YIELD PER ACRE IN BUSHELS. | |
|---------|---------------------------------------|-------------------|-------------------------------|---------|
| | | | Spring. | Fall. |
| 1 | American Magnum..... | May 27..... | 101.8 | Failure |
| 2 | Astonisher..... | May 10..... | 242.8 | Failure |
| 3 | Burbank..... | June 1..... | 212.9 | 121. |
| 4 | Boston Peerless..... | May 20..... | 258.8 | 24.2 |
| 5 | Beauty of Hebron..... | May 20..... | 176.6 | 24.5 |
| 6 | Burpee's Empire State..... | May 30..... | 314.6 | 26. |
| 7 | Cayuga..... | May 15..... | 308. | 72.6 |
| 8 | Champion of America..... | May 15..... | 248.7 | Failure |
| 9 | Chief..... | May 10..... | 242. | Failure |
| 10 | Churchill's Seedling..... | May 20..... | 211. | 121. |
| 11 | Charter Oak..... | May 15..... | 136.1 | 40.3 |
| 12 | Clark No 1..... | May 1..... | 147.7 | 201.6 |
| 13 | Cheeseman's Seed..... | May 5..... | 211.7 | 93. |
| 14 | Crompton's Surprise..... | May 20..... | 175.4 | 48.4 |
| 15 | Carpenter's Seed..... | June 20..... | 201.6 | 112.9 |
| 16 | Dunsmore..... | June 20..... | 245. | 38. |
| 17 | Dictator..... | May 20..... | 205.7 | 70.5 |
| 18 | Dress' Triumph..... | May 20..... | 311.1 | Failure |
| 19 | Dakota Red..... | May 10..... | 222.9 | 74.4 |
| 20 | Early Perfection..... | May 10..... | 225.8 | 24.2 |
| 21 | Early Essex..... | May 5..... | 232.3 | 80.6 |
| 22 | Early Puritan..... | May 5..... | 195.8 | Failure |
| 23 | Early Rose..... | May 20..... | 209.7 | 103.7 |
| 24 | Early Thorburn (Louisiana grown)..... | May 30..... | 232.3 | 161.3 |
| 25 | Early Sunrise..... | April 30..... | 271. | Failure |
| 26 | Early Dustin..... | May 1..... | 67.2 | 24.2 |
| 27 | Extra Early Vermont..... | May 20..... | 201.6 | 30.2 |
| 28 | Early Dawn..... | June 1..... | 189. | 19.3 |
| 29 | Gold Band..... | May 20..... | 229.9 | 48.4 |
| 30 | Geo. H. Price..... | June 21..... | 214.7 | Failure |
| 31 | Harvard..... | May 20..... | 293.2 | 48.4 |
| 32 | Hampton Beauty..... | May 20..... | 223.8 | 48.4 |
| 33 | Iaho..... | June 26..... | 328. | 67.5 |
| 34 | Illinois Hoosier..... | June 21..... | 229.9 | 24.2 |
| 35 | James Vick..... | May 20..... | 169.4 | 69.1 |
| 36 | Knapp's Snowbank..... | June 1..... | 181.5 | 6.6 |
| 37 | Late Rose..... | May 30..... | 216.7 | Failure |
| 38 | Little Giant..... | May 20..... | 221.8 | 60.5 |
| 39 | Late Beauty of Hebron..... | May 20..... | 281.1 | 8.7 |
| 40 | Mason's Seed..... | June 15..... | 131.25 | Failure |
| 41 | Maiden's Blush..... | May 28..... | 161.3 | Failure |
| 42 | Morning Star..... | May 15..... | 148.7 | 32.2 |
| 43 | Mitchel's seedling..... | May 20..... | 179.7 | 53.7 |
| 44 | Magnum Bonum..... | May 10..... | 203.2 | 26.8 |
| 45 | Nigh's Early Standard..... | May 10..... | 222.4 | Failure |
| 46 | Patson's Prolific..... | June 5..... | 277. | 121. |
| 47 | Pride of the West..... | May 1..... | 248. | 90.7 |
| 48 | Queen of Sheba..... | June 1..... | 201.9 | 120. |
| 49 | Queen of Roses..... | June 10..... | 275.8 | 40.3 |
| 50 | Rural Blush..... | June 5..... | 233.3 | 60.5 |

IRISH POTATOES.—VARIETIES.—CONTINUED

| Number. | VARIETY. | Date of Maturity. | YIELD PER ACRE IN BUSHELS. | |
|---------|-----------------------------|-------------------|-------------------------------|---------|
| | | | Spring. | Fall. |
| 51 | Rural New Yorker No. 2..... | June 25..... | 205.7 | 72.6 |
| 52 | Rankin Racer..... | June 1..... | 182. | 121. |
| 53 | Rochester Favorite..... | May 15..... | 193.6 | Failure |
| 54 | Silver Skin..... | May 10..... | 162.1 | 24.2 |
| 55 | Thorburn..... | May 10..... | 231.3 | 96.8 |
| 56 | Triumph..... | May 15..... | 313.3 | Failure |
| 57 | White Beauty of Hebron..... | June 1..... | 232.3 | 40.3 |
| 58 | White Elephant..... | June 5..... | 275.8 | 121. |
| 59 | Weld's No. 40..... | June 21..... | 269.5 | Failure |
| 60 | Yellow Elephant..... | June 15..... | 453.6 | 72.6 |

These estimates are based upon plats containing 1-290 of an acre, and, as stated before, the season was very favorable for a spring crop and not at all favorable for a fall crop, hence the number of utter failures in the latter.

The two varieties used for field culture in both spring and fall planting, around Baton Rouge, are Peerless and Queen of Sheba, with the preference for the former. But for potatoes of good quality and size combined, we know of no better variety than the Rural New Yorker No. 2. For vicinity of Baton Rouge the least number of culls were obtained from this than from any other variety planted.

The Early Sunrise, Thorburn, Rose and Elephant are also among the best raised at Baton Rouge.

FERTILIZER TEST WITH POTATOES AT BATON ROUGE.

The fertilizer experiments were repeated this year, and the following is the record of 1892 and 1893 in order to show the comparison :

| Number. | MANURE USED PER ACRE. | | Total yield 1893. | Total yield 1892. | |
|---------|-----------------------|-------------------------|----------------------------|-------------------|--------|
| 1 | 1,000 lbs. | cotton seed meal..... | 265.9 | 345.54 | |
| 2 | 300 " | acid phosphate..... | 308.0 | 346.30 | |
| 3 | 100 " | sulphate of potash..... | 237.0 | 223.41 | |
| 4 | No manure..... | | 174.1 | 228.99 | |
| 5 | 1,000 lbs. | cotton seed meal..... | 285.5 | 339.72 | |
| | 300 " | acid phosphate..... | | | |
| 6 | 1,000 " | cotton seed meal..... | 229.84 | 304.74 | |
| | 100 " | sulphate of potash..... | | | |
| | 300 " | acid phosphate..... | | | |
| 7 | 100 " | sulphate of potash..... | 280.4 | 305.98 | |
| | 1,000 " | cotton seed meal..... | | | |
| 8 | 300 " | acid phosphate..... | 254.05 | 259.44 | |
| | 100 " | sulphate of potash..... | | | |
| 9 | 1,000 " | cotton seed meal..... | In three applications..... | 280.7 | 285.07 |
| | 300 " | acid phosphate..... | | | |
| | 100 " | sulphate of potash..... | | | |
| | 1,000 " | cotton seed meal..... | Rural method..... | 297.1 | 509.92 |
| 10 | 300 " | acid phosphate..... | | | |
| | 100 " | sulphate of potash..... | | | |

These results emphasize the teachings of last year, showing the need that our soil has for assimilable phosphoric acid and some nitrogen, but its lack of response to applications of potash, distance in row and the number of eyes were also repeated, with the same general results as are found in report of 1892.

IRISH POTATOES AT THE NORTH LOUISIANA EXPERIMENT STATION

Experiments in Irish potatoes were of three kinds: First. Experiments in varieties; object—to test the variety or varieties best adapted to this soil and climate. Second. Experiments with different fertilizers; object, to test the fertilizer best suited to potatoes in this soil. Third. Physiological experiments; object, to test the size of potatoes and cuttings best to plant.

The land was poor and of the grey sandy type, previously cultivated in potatoes.

The land was broken in January, and on February the 20th rows were marked off, with straight shovel, three feet apart, fertilizer distributed uniformly in drill, two furrows thrown on with turning plow, making a flat list, the list opened, potatoes

dropped twelve to fourteen inches apart in the drill, and covered with two furrows of scooter. The after cultivation was with hoe, scooter and heelsrape—two cultivations in all.

PLOT No. 1, IRISH POTATOES.—VARIETIES.

| Number. | NAME OF VARIETY. | Bushels, Culls per | Bushels, Merchant- | Total bushels per |
|---------|---------------------------|--------------------|--------------------|-------------------|
| | | acre. | able per acre. | acre. |
| 1 | New Queen..... | 24 | 110 | 134 |
| 2 | Mason's Seedling..... | 18 | 125 | 143 |
| 3 | Vermont Beauties..... | 19 | 141 | 160 |
| 4 | Beauty of Hebron..... | 17 | 157 | 174 |
| 5 | Burbank..... | 16 | 142 | 158 |
| 6 | Chas. Downing..... | 26 | 129 | 155 |
| 7 | White Star..... | 27 | 85 | 112 |
| 8 | Early Ohio..... | 21 | 148 | 169 |
| 9 | Peerless..... | 15 | 167 | 182 |
| 10 | Extra Early Vermont..... | 16 | 156 | 172 |
| 11 | Early Sunrise..... | 21 | 120 | 141 |
| 12 | Rochester Favorite..... | 27 | 110 | 137 |
| 13 | Great Eastern..... | 23 | 140 | 163 |
| 14 | Early Rose..... | 21 | 151 | 172 |
| 15 | Empire State..... | 20 | 153 | 173 |
| 16 | Rural Blush..... | 18 | 160 | 178 |
| 17 | Rural New Yorker..... | 19 | 154 | 173 |
| 18 | Dakota Red..... | 22 | 149 | 171 |
| 19 | Late Favorite..... | 20 | 151 | 171 |
| 20 | Banana..... | 29 | 78 | 107 |
| 21 | Early Essex..... | 24 | 99 | 123 |
| 22 | Burpee's Extra Early..... | 17 | 144 | 161 |
| 23 | Garrison's Seedling..... | 27 | 108 | 135 |
| 24 | Collins' Superb..... | 24 | 109 | 133 |

CONCLUSIONS.

Among the early potatoes, the following may be recommended: Early Rose, Early Ohio, Extra Early Vermont, Early Essex, Empire State, Burpee's Extra Early and Beauty of Hebron.

Among the medium early, ripening within a week of the above, the following: Peerless, Burbank, Rural Blush, Rural New Yorker, Dakota Red, New Queen and Chas. Downing.

Among late sorts: The Late Favorite, Great Eastern, Mason's Seedling, Banana, White Star, Collins' Superb and Garrison's Seedling, are discarded.

FERTILIZER TEST AT CALHOUN.

| No. of Experiment. | KIND OF FERTILIZER USED, PER EXPERIMENT. | | Number of bushels, Merchantable po- tatoes, per acre. | Number of bushels, culls, per acre. | Total number of bushels, per acre. |
|--------------------|--|-----|---|--|---------------------------------------|
| | | | | | |
| 1 | 3 lbs. nitrate soda..... | | | | |
| | 2 " sulphate ammonia..... | | | | |
| | 6 " cotton seed meal..... | 194 | 28 | 222 | |
| | 5 " acid phosphate..... | | | | |
| | 4 " kainite..... | | | | |
| 2 | 3 " nitrate soda..... | | | | |
| | 2 " sulphate ammonia..... | | | | |
| | 6 " cotton seed meal..... | 195 | 29 | 224 | |
| | 5 " acid phosphate..... | | | | |
| | No manure..... | 42 | 31 | 73 | |
| 3 | 3 lbs. nitrate soda..... | | | | |
| | 2 " sulphate ammonia..... | 188 | 28 | 216 | |
| | 6 " cotton seed meal..... | | | | |
| | 5 " acid phosphate..... | 52 | 29 | 81 | |
| | 18 " cotton seed meal..... | | | | |
| 4 | 5 " acid phosphate..... | 189 | 26 | 215 | |
| | 4 " kainite..... | | | | |
| | 18 " cotton seed meal..... | | | | |
| | 5 " acid phosphate..... | 191 | 24 | 215 | |
| | No manure..... | 41 | 34 | 75 | |
| 5 | 18 lbs. cotton seed meal..... | 164 | 29 | 193 | |
| | 4 " kainite..... | | | | |
| | 18 " cotton seed meal..... | 172 | 26 | 198 | |
| | 4 " kainite..... | 44 | 32 | 76 | |
| | 60 " crushed cotton seed..... | | | | |
| 6 | 5 " acid phosphate..... | 194 | 30 | 224 | |
| | 4 " kainite..... | | | | |
| | 60 " crushed cotton seed..... | 192 | 34 | 226 | |
| | 5 " acid phosphate..... | | | | |
| | 60 " crushed cotton seed..... | 184 | 35 | 219 | |
| 7 | 4 " kainite..... | | | | |
| | No manure..... | 47 | 31 | 78 | |
| | 60 lbs. crushed cotton seed..... | 187 | 30 | 217 | |
| | 60 " green cotton seed..... | | | | |
| | 5 " acid phosphate..... | 182 | 29 | 211 | |
| 8 | 4 " kainite..... | | | | |
| | 60 " green cotton seed..... | | | | |
| | 5 " acid phosphate..... | 184 | 27 | 211 | |
| | 60 " green cotton seed..... | | | | |
| | 4 " kainite..... | 175 | 34 | 209 | |
| 9 | No manure..... | 49 | 37 | 86 | |
| | 60 lbs. green cotton seed..... | 171 | 34 | 205 | |
| | 100 " compost..... | 189 | 29 | 218 | |
| | 4 " kainite..... | | | | |
| | 100 " compost..... | 189 | 27 | 216 | |
| 10 | No manure..... | 54 | 33 | 87 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Crushed cotton seed and acid phosphate has given best results, again followed closely by meal and phosphate, and mixed nitrogen and phosphate. It will be observed that neither potash nor phosphate give good results used alone. Phosphate increases the yield slightly. Combined potash, not at all. Cotton seed, green, crushed and meal, with phosphate, are all good and appropriate.

PHYSIOLOGICAL EXPERIMENTS.

One row each was given to the following varieties potatoes, and in each row there were planted, eight large potatoes, (a); eight small potatoes, (b); eight pieces cut in usual manner, with two or more eyes, (c); eight pieces, cut to a single eye, (d). The diagram below shows the weight of potatoes in each series, "a," "b," "c," "d."

| NAME OF VARIETY. | WEIGHT POUNDS. | | | |
|--------------------------|----------------|-----|----|-----|
| | a. | b. | c. | d. |
| Early Rose..... | 2.5 | 1.5 | .6 | .2 |
| Peerless..... | 3.5 | 1.7 | .9 | .3 |
| Burbank..... | 2.7 | 1.2 | .7 | .2 |
| Beauty of Hebron..... | 2.8 | 1.3 | .8 | .15 |
| Extra Early Vermont..... | 2.5 | 1.4 | .7 | .14 |
| Rural New Yorker..... | 2.7 | 1.6 | .6 | .12 |
| Thorburn..... | 2.4 | 1.2 | .7 | .2 |

The following table gives the yield of the foregoing experiments.

YIELD PER ACRE OF FOREGOING PHYSIOLOGICAL EXPERIMENTS.

| NAME OF VARIETY. | A. Number Bushels. | | | B. Number Bushels. | | | C. No. Bushels. | | | D. No. Bush 's. | | |
|--------------------------|--------------------|-------------------|--------|--------------------|-------------------|--------|-----------------|-------------------|--------|-----------------|-------------------|--------|
| | Merchantable. | Non merchantable. | Total. | Merchantable. | Non merchantable. | Total. | Merchantable. | Non merchantable. | Total. | Merchantable. | Non merchantable. | Total. |
| Early Rose..... | 91 49 | | 140 | 94 48 | 142 | | 90 39 | 129 | | 44 29 | 73 | |
| Peerless..... | 109 38 | | 147 | 105 39 | 144 | | 99 32 | 131 | | 54 24 | 78 | |
| Burbank..... | 86 48 | | 134 | 82 54 | 136 | | 96 30 | 126 | | 49 22 | 71 | |
| Hebron..... | 90 45 | | 135 | 90 48 | 138 | | 94 29 | 123 | | 44 28 | 72 | |
| Extra Early Vermont..... | 88 47 | | 135 | 91 39 | 130 | | 91 26 | 117 | | 41 28 | 69 | |
| Rural New Yorker..... | 84 49 | | 133 | 79 44 | 123 | | 90 28 | 118 | | 57 22 | 69 | |
| Thorburn..... | 74 64 | | 128 | 84 41 | 125 | | 89 24 | 113 | | 44 21 | 65 | |

From the results of four years the conclusion is drawn that the most economical size or cutting is a piece of two good eyes. The whole potato requires more than three times the cost of cuttings, of two or more eyes. Merchantable potatoes increase with cuttings; one eye, cut to small piece, does not secure good results.

EXPERIMENTS WITH POTATOES AT AUDUBON PARK IN 1893.

Six varieties were tested at this Station. One of them, the Early Sunrise, giving very poor results on account of defective stand. The following are the results of the other five varieties :

| | | | | |
|----------------------------------|----------------------|---|---|---|
| Rural Blush yielded..... | 360 bushels per acre | | | |
| Early Rose yielded..... | 219 | " | " | " |
| Rural New Yorker No. 2 yielded.. | 230 | " | " | " |
| White Elephant..... | 192 | " | " | " |
| Boston Peerless..... | 240 | " | " | " |

RADISHES AT BATON ROUGE.

This vegetable may be sown very often during the season. Eight sowings were made the past year, and the following notes were taken from the sowing made March 22 :

1. *Early Round Dark Red*.—A small radish, ready for market in 21 days. When small is very solid, attractive and desirable.

2. *Early Scarlet Turnip*.—Is dark red, turnip shaped, solid ; ready for market in 25 days.

3. *Early Scarlet Globe*.—Another solid radish ; ready for market in 27 days.

4. *Chartiers*.—Very long ; red, with white tips ; is solid, long standing, and the best long radish on our list ; ready in 27 days.

5. *Long White Vienna* —This late variety has beautiful long white roots, solid, and making an attractive bunch. Ready in 35 days.

6. *Long Brightest Scarlet*.—Half long, deep red and makes a fine appearance ; ready in 24 days.

7. *Long Scarlet or Short Top*.—Very long, slender and very crisp. Ready in 26 days.

8. *Ne Plus Ultra*.—Similar in every way to the White Tipped Scarlet Turnip ; quality fine.

9. *Olive Shaped Scarlet*.—Is deep scarlet, olive shaped ; desirable ; ready in 24 days.

10. *Rapid Forcing*.—A deep red, round, rapid growing radish ; ready in 21 days.

11. *Red Rocket*.—A red, olive shaped variety of merit ; ready in 23 days.

12. *Red Forcing*.—Another name for Early Round Dark Red ; a rapid growing variety ; ready in 21 days.

13. *Sandwich*.—A half long, late variety, having beautiful white roots ; ready in 30 days.

14.—*Woods' Early Frame*.—Is long, red with white tip, very tender ; our earliest long radish ; ready for market in 22 days.

15. *White Olive Shaped*.—A solid, small white radish ; ready in 23 days.

16. *White Summer Turnip*.—A fine growing solid radish ; turns stringy soon ; ready in 25 days.

17. *White Tipped Scarlet Turnip*.—A radish of fair quality ; ready in thirty days.

18. *White Strasburg* —White, carrot shaped, solid and beautiful, always commanding a ready sale ; ready in 28 days.

19. *Yellow Summer Turnip*.—A dark yellow, solid radish ; inclined to be strong ; ready in 25 days.

An excellent selection from the list above for Central Louisiana would be :

For early use: Woods' Early Frame, Early Round Dark Red.

Later: Chartiers.

For very late: White Vienna, Sandwich, Strasburg.

There is always a sale for good radishes, and the markets here demand the brighter colored varieties, hence the gardeners seldom plant a light colored variety. In growing the latest varieties for market a darker variety would be preferable, even darker than the Rosy Gem.

The following is the record of Radishes at the North Louisiana Experiment Station :

RADISHES AT CALHOUN.

| VARIETIES. | Seedsman. | Date of Planting. | Date of Germinating. | Ready for Market. | Remarks, etc. |
|-------------------------------|-------------------------|-------------------|----------------------|-------------------|--|
| Early Scarlet Turnips | Frotscher | Feb 1 | Feb 10 | Mc'h 18 | Early market. |
| Early Long Scarlet.. | do | Feb 1 | Feb 10 | Mc'h 15 | Very early. Valuable. |
| Wood's Early Fraue. | do | Feb 1 | Feb 9 | Mc'h 15 | Similar to "Long Scarlet." |
| Chinese Rose..... | do | Mc'h 21 | Mc'h 26 | April 16 | An "all seasons" variety. Successful. |
| Black Spanish..... | do | Mc'h 21 | Mc'h 27 | April 25 | A winter variety, but is good for summer also. |
| White Strasburg..... | do | Mc'h 21 | Mc'h 26 | April 16 | Very fine for market or home use. Has always given satisfaction. |
| White Cal. Mammoth | do | Mc'h 21 | Mc'h 27 | April 25 | Both summer and winter. |
| Scarlet Half Long French..... | do | Mc'h 21 | Mc'h 25 | April 16 | Very fine for market or home use. |
| Golden Globe..... | do | Mc'h 21 | Mc'h 26 | April 16 | Very ordinary. |
| Philadelphia "Box"... | Livings- tons' Sons. | Mc'h 21 | Mc'h 26 | April 16 | Very fine for home use. Successful. |
| Beckert's Charter.... | do | Mc'h 21 | Mc'h 26 | April 16 | Very fine for market or home use. |

Remarks.—As good a selection as our list would suggest, is as follows :

For early use : Early Long Scarlet and Early Scarlet Turnip, to be followed by Scarlet Half Long French, Chartier and White Strasburg.

SQUASHES AT BATON ROUGE.

This vegetable grows well, but only two varieties seem to be at all popular. The first one of these is a variety which will supply the small green fruits soonest. The Early Bush does this, and its fruit is gathered and sold before the seeds harden at all. The other demand is for a winter sort, and as the Cushaw Crook Neck (Pumpkin) for years has supplied a long keeping sweet fruit, it has kept the place which is filled in the North by such squashes as the Hubbard, etc. There seems to be no demand for

the common winter squashes. Following will be found a note concerning a few varieties.

VARIETIES.

1. *Early Bush or Patty Pan*.—The earliest variety we have, a small white scalloped squash, which supplies the early green fruits. Habit is very bushy. Excellent at Audubon Park.

2. *Essex Hybrid*.—A late keeping winter squash, grew well and produced some fine specimens.

3. *Hubbard*.—The standard large, rough winter squash of the North. Grew well.

4. *Golden Custard*.—A large scalloped bush squash, sweet and productive, is rather dark in color, and on this account was not demanded as readily as the white varieties.

5. *Long Green or Summer Crookneck*.—A variety of merit, but does not sell as readily as the round varieties. Is not early, but continues long in bearing.

6. *Cashaw Crookneck*.—(Pumpkin). This is cultivated universally throughout the whole South, and fills the place occupied by the winter squashes of the North. It is a strong growing plant, and bears abundantly. Its flesh is golden yellow and exceedingly sweet. In some localities it is called the "Sweet Potato Pumpkin." Keeps throughout the winter season, and is found on the table nearly every day.

7. *Fordhook*.—Grow only at Audubon Park ; good.

8. *Der Wing*.—Grow only at Audubon Park ; very prolific.

As stated before the *Early Bush* and the *Cashaw* are the two varieties grown extensively in Central Louisiana, but it is believed that there is still a place for a good winter squash, as the *Cashaw* fills a place by itself, and the *Hubbard*, *Essex* or some good winter sort, when acquainted with thoroughly, would demand attention and be generally cultivated.

SQUASHES AT THE NORTH LOUISIANA EXPERIMENT STATION.

| VARIETIES. | Seedsmen. | Date of Planting. | Date of Germinating. | First Blooms. | Ready for Market. | Remarks, etc. |
|-----------------------|---------------------------|-------------------|----------------------|---------------|-------------------|--------------------------------------|
| Early Bush..... | Frotscher..... | April 4 | April 9 | May 13 | May 22 |Early—very successful |
| Early White Bush..... | H. C. Newsom..... | “ | “ | May 12 | “ |Same as the above—successful |
| Sibley..... | Johnson & Stokes, Phila. | “ | “ | May 22 | June 3 |Result unsatisfactory |
| White Pineapple..... | T. W. Wood & Son..... | “ | April 10 | “ | May 31 |Successful |
| Boston Marrow..... | T. W. Wood & Son..... | “ | April 11 | May 16 | May 25 |Successful |
| New Eureka..... | A. W. Livingston's Sons. | “ | April 9 | May 17 | May 27 |Partially (new 1893) successful |
| Livingston's Pie..... | A. W. Livingston's Sons.. | “ | April 8 | May 18 | May 28 |New 1893—successful |

DESCRIPTION OF NEW VARIETIES NOT PREVIOUSLY GROWN AT THE STATION.

New Eureka—medium to large size, oblong, pointed toward the stem, light greenish gray color, flesh yellow, firm, solid and fine grained, quality good, plants strong, vigorous and healthy, productive. Summer or winter. Fine for feeding to stock. Livingston's Pie—medium size, oblong-round, grayish color with green stripes, rind very hard, thick and tough, flesh yellow, firm, solid and fine, quality good, productive, strong and vigorous grower. Pineapple—small size, conical and prominently scalloped, shape not uniform, a silvery white color, thick and tough, flesh firm, solid and of very good quality, was not productive with us.

TOMATOES AT BATON ROUGE.

An extended record of tomatoes was published last year. This was repeated, in a measure, the past year. The results agree with those of last year, hence only a few descriptive notes will be given with the following varieties: The seed was sown at Baton Rouge February 27, potted March 6 and set in the open field April 1. Ordinary treatment was given and the blight and insect ravages kept under complete control by the use of a combined mixture of Bordeaux mixture and Paris green. This completely cleared our vines of the large tomato worm, as well as all other insects.

The combination is made by adding Paris green to the Bordeaux mixture at the rate of one pound to 250 gallons of the mixture.

VARIETIES.

1. *Acme*.—Ripened June 7; average weight 3½ ounces. This is a solid, smooth, medium sized variety, which is very popular with market gardeners; grown more than any other variety around New Orleans.

2. *Beauty*.—Ripens June 7; average weight 5 ounces; ripens well, and makes a very solid, beautifully colored fruit. Its color is lighter than most tomatoes.

3. *Climax*.—Ripened June 5; average weight 4 ounces; similar to the *Acme*, but some larger; quite productive and desirable.

4. *Chemin*.—Ripened June 7; average weight 4 ounces; one of our best productive sorts; bears with the *Beauty*, and has more of a ball shaped fruit; more inclined to become diseased than other varieties.

5. *Dwarf Champion*.—Ripened June 5; average weight 3 ounces; a dwarf upright grower; fruit resembles the *Climax*; has a characteristic light red color; very attractive.

6. *Extra Early Advance*.—Ripened June 1; average weight 2.2 ounces. An extra early, small red tomato, a very heavy bearer, but the fruit is too small for general planting.

7. *Essex Early Hybrid*.—Ripened June 5; average weight 4.6 ounces. A light red, large smooth tomato; not very productive, but bears no small inferior fruit.

8. *Early Gem*.—Ripened June 7; average weight 4.1 ounces. Similar to *Chemin*; a fair tomato.

9. *Extra Early Dwarf Red*.—Ripened June 21; average weight 3.2 ounces. This variety did not do well on the grounds; ordinarily it is one of our very earliest varieties.

10. *Favorite*.—Ripened June 19; average weight 6.7 ounces; similar in all respects to perfection. A handsome large fruited variety, suitable for field culture.

11. *Golden Queen*.—Ripened June 12; average weight 4.8 ounces; our very best yellow variety. The fruit is good size and very attractive. Not very early nor a very late producer.

12. *Ignotum*.—Ripened June 5; average weight 4.6 ounces. This variety is one of our healthiest, and most productive. It also holds out well during the season.

13. *King of the Earlies*.—Ripened June 12; average weight 3 ounces. A rather small, solid red tomato which produces well.

Lemon Blush.—Ripened June 1; average weight 3.3 ounces. A new blush colored variety, inclined to be flat. It bore an abundance of good sized tomatoes, quality with the best.

15. *Long Keeper*.—Ripened June 1; average weight 3.6 ounces. A good sized red tomato possessing superior keeping qualities; not very prolific.

16. *Lorillard*.—Ripened June 1; average weight 3.9 ounces. A good sort coming into full bearing as a second early variety; good cropper.

17. *Matchless*.—Ripened June 7; average weight 5.3 ounces. One of the finest tomatoes in our list, quite similar to the *Perfection*; desirable.

18. *Peach*.—Ripened June 7; average weight 1.6 ounces. A small, nearly round tomato, delicately colored resembling a peach; a novelty.

19. *Prelude*.—Ripened June 7; average weight 2.1 ounces. A desirable sort; somewhat earlier than the *Perfection*, but not such a heavy cropper.

20. *Perfection*.—Ripened June 8; average weight 5.4 ounces. An excellent, large, smooth tomato, solid and rich colored; fine for field culture.

21. *Potato Leaf*.—Ripened June 12; average weight 3.3 ounces. Not a desirous tomato as it grew on our plots this year as it is not very productive.

22. *Paragon*.—Ripened June 14; average weight 6 ounces; very similar to *Perfection*. A valuable tomato for market and shipping.

23. *Ponderoso*.—Ripened June 22; average weight 9 ounces; a huge, late tomato; ripening unevenly; not as a rule desirable.

24. *Red Pear Shaped*.—Ripened June 1; average weight .46 ounce; small and prolific and like the *Yellow Plum* and *Red Cherry*; used much in pickles.

25. *Red Cherry*.—Ripened June 1; average weight .29 ounce; small and round; used as above.

26. *Small Round Yellow*.—Ripened June 1; average weight .17 ounce; similar to *Red Cherry*, except *Yellow*.

27. *Stone*.—Ripened June 14; average weight 8.4 ounces. A very large solid, smooth, red tomato; one of the best new varieties offered. A heavy bearer.

28. *Trophy*.—Ripened June 12; average weight 6.4 ounces. An old variety; a large red, smooth tomato not unlike Perfection.

29. *Terra Cotta*.—Ripened June 7; average weight 4.3 ounces. A peculiar colored variety, as its name indicates. It also has other peculiarities; is large and flattened; very productive and rather mild in flavor. A decided novelty.

30. *White Apple*.—Ripened June 12; average weight 1.4 ounces. This variety is more of a novelty than otherwise. A small white apple shaped fruit.

31. *Yellow Plum*.—Ripened June 1; average weight .67 ounce. Small, early and prolific.

For the garden few varieties excel the Acme, Beauty, Perfection and Stone. These will produce an abundance of the finest kind of tomatoes. The Terra Cotta is a novelty of decided merits and should be given a trial. Therefore, these are heartily recommended in Central Louisiana.

Fertilizer experiments with tomatoes were repeated, with the same results as of last year; the dressings of phosphoric acid being especially marked by increased yields, while potash was shown not to be needed, and nitrogen standing second in the list of manurial elements required.

The following is the report on tomatoes at the North Louisiana Experiment Station.

TEST OF VARIETIES.

| VARIETIES. | Seedsman. | Date of Planting. | Date of Germinating. | First Blooms. | Ready for Market. | Remarks, etc. |
|------------------------------|--------------------------|-------------------|----------------------|---------------|-------------------|---|
| Dwarf Champion..... | R. Frotscher..... | Jan'y 3 | Feb'y 16 | May 12 | June 20 | Has given entire satisfaction |
| Livingston's Beauty..... | R. Frotscher..... | " | Feb'y 14 | May 16 | June 26 | Result satisfactory |
| King of the Earliest..... | R. Frotscher..... | " | " | " | June 18 | Early, but has never given satisfaction |
| Selected Trophy..... | R. Frotscher..... | " | Feb'y 17 | May 12 | " | An old and reliable variety |
| Livingston's Favorite..... | R. Frotscher..... | " | Feb'y 14 | May 16 | June 20 | Has always given satisfaction |
| Extra Early Dwarf Red..... | R. Frotscher..... | " | " | May 6 | June 16 | Very early, but failed to give satisfaction |
| Livingston's Perfection..... | R. Frotscher..... | " | Feb'y 17 | May 11 | June 20 | Has always given satisfaction |
| Horsford's Prelude..... | R. Frotscher..... | " | Feb'y 16 | May 10 | " | Result satisfactory |
| Paragon..... | R. Frotscher..... | " | " | " | " | Result satisfactory |
| Mansfield's Free..... | T. W. Wood & Son..... | Feb'y 8 | Feb'y 23 | May 15 | June 24 | Not promising |
| Ponderosa..... | T. W. Wood & Son..... | " | " | " | " | Similar to the Mansfield Tree |
| Lorillard..... | T. W. Wood & Son..... | " | " | " | June 20 | Promising |
| Atlantic Prize..... | Johnson & Stokes, Phila. | Feb'y 9 | Feb'y 22 | " | June 19 | Promising |
| New Stone..... | Johnson & Stokes, Phila. | " | Feb'y 2 | May 17 | June 20 | Promising |
| Aristocrat Dwarf..... | A. W. Livingston's Sons. | April 4 | April 15 | June 1 | June 28 | New 1893-- Promising |
| Livingston's Buckeye State.. | A. W. Livingston's Sons. | " | April 11 | " | June 25 | New 1893-- Promising |
| The Acme..... | H. C. Newsom..... | " | April 10 | June 4 | June 2 | Result satisfactory |

Of the newer varieties, not tested before at this Station, the Mansfield Tree and Ponderoso seem to be very much alike, and fall far below the estimate claimed by their introducers.

The Lorillard, Atlantic Prize and New Stone are exceedingly promising in their product, and are sure to give satisfaction.

Those of our older varieties, giving entire satisfaction, are Perfection, Beauty, Paragon and Dwarf Champion.

TURNIPS GROWN AT THE NORTH LOUISIANA EXPERIMENT STATION.

The first sowing of our list was made February 1st, the seed being obtained from R. Frotscher, New Orleans, the descriptions of which are as follows :

VARIETIES.

Improved Purple Top.—This variety is mostly grown for feeding purposes, but is also good for table use. It is medium in size, oblong oval ; flesh yellow, hard and solid ; surface covered with fibrous roots ; of good quality and also a good keeper ; ready for use March 22.

White Hanover.—Tops similar to Improved Purple Top Ruta Baga, but finer and more tender ; roots white, long and tapering. Surface covered with fibrous roots ; quality very good ; keeps well ; table use ; ready for use March 20.

Large Cowhorn.—A long, rough turnip with many crooked roots and branches ; made few tops ; rather coarse ; soon begins to rot ; ready for use March 25.

Large White Globe.—Medium to large size ; globular shape ; texture tough and hard ; tops very rank ; not desirable for table use ; ready for use March 20.

Munich Extra Early Purple Top.—Medium size roots, flat and evenly shaped. Tops light and fine ; texture fine and solid ; ready for use March 15.

Early White Egg.—Medium size, oval, clean and smooth ; white ; tops large and healthy ; texture tender and crisp ; quality good ; ready for use March 18.

Amber Globe.—Medium size, round, yellow, clean and smooth; tops light and of poor quality; texture coarse; keeps well; not desirable for table use; ready for market March 20.

Golden Ball.—Similar to the above.

Yellow Aberdeen.—Failure.

Early Red or Purple Top.—A large flat growing variety; tops fine and tender; texture of root firm, crisp and solid; a very desirable variety for table use.

Second planting was made on August 7th. Seed obtained from Alexander Drug & Seed Company, Augusta, Ga.

Early White Flat Dutch.—Ready for use (tops) September 1; result highly satisfactory.

Red or Purple Top Globe.—Ready (tops) September 1; result satisfactory; grows large and of fine quality.

Extra Early Purple Top Milan.—Ready (tops) September 1; result satisfactory; large size, flat, skin smooth and clean; quality good.

Improved "Bon Air" Ruta Baga.—Ready (tops) September 1; result highly satisfactory; new introduction; grows very large, long, oval tapering roots; clean and smooth; flesh yellow, firm, solid, juicy and sweet; texture fine grained; foliage very large, vigorous and healthy; very promising; good for table use or stock feeding.

FRUITS.

The orchard yielded some fruit the past season, and its general condition at present is excellent. Every effort has been made to keep the trees in the best condition of health. Clean culture has been employed as well as the utmost care used in order to check and ward off insect and fungous attacks.

VARIETIES OF APPLES AT BATON ROUGE.

1. *Hyslop*.—A small crab, streaked with red on a green ground ; ripened July 15.

2. *Red Streak*.—Ripened June 20. A yellowish green apple, heavily streaked with red, pointed with yellow spots ; size medium to large ; flesh is crisp and delicious, and flavor very slightly acid ; tree is a good grower and promises to succeed.

3. *Shockley*.—Ripened October 5. Yellow, with red cheek, rather inclined to be long in shape ; flavor and flesh not the best, but is agreeable ; tree is a fine, upright, healthy grower.

4. *Transcendent*.—Ripens July 10. A small white crab with a blush cheek ; good grower.

5. *Twenty Ounce*.—Ripened July 20. A large variety, popular in the North. This small tree produced several large apples this season. They were large, green and yellow, heavily streaked with red ; tree growing well.

6. *Washington Strawberry*.—Ripened June 30. A large yellow red cheeked apple, of good quality. Tree a slow grower.

The two most promising trees on the grounds are the Shockley and Red Streak. A few trees were lost this season, in spite of a great deal of watchfulness, from the Flat headed apple tree borers. It is thought that by carefully treating the trunks of the

trees with Glubo, a refuse product from the soap factory, these pests will be controlled. This borer lives just underneath the bark, on the sunny side, until he approaches maturity, when he burrows deeper. Any material which will repel the insect from laying the egg will be the best form of treatment, and Glubo does this.

The following notes on apples, from the orchard at North Louisiana Experiment Station, are given :

APPLES.

Pear or Palmer.—Fruit: Medium size, round, inclined to oblong, light strawberry red, on yellow ground, flesh yellow, fine grained, juicy, quality good. Tree: Hardy, but of slow growth; bore only a few specimens.

Carolina Watson.—Fruit: Medium to large, red, with purplish bloom, flesh white, flavor good, texture fine grained, firm and solid. Tree: Hardy, upright, compact, vigorous grower; bore a light crop.

FIGS AT BATON ROUGE.

The severe freezes of last season killed back nearly all the varieties of figs, however, very late in the season ten varieties bore fruit. As it was out of season for them, it is thought best not to give descriptions in detail. The Celeste still holds its own in popular favor, and justly so, as it produces heavily excellent crops of figs. The Mission, Reine Blanch and Smyrna also did well this season. Two of our trees became infested with the fig borer, and as this enemy is now among us, more care and attention must be given to our figs. For information concerning this pest see notes by Prof. Morgan, in the Entomological Report.

At Audubon Park excellent crops of Celeste, White Marseilles, Adriatic and Lemon were obtained. The fig borer destroyed two trees of above varieties and threaten the destruction of the entire fig orchard.

At Calhoun the following notes on figs are recorded :

FIGS.

Celeste.—Bore a large crop of fruit of very fine quality. Tree a fine grower ; hardy.

Brown Turkey.—Bore a medium crop of fruit of excellent quality. Tree perfectly hardy, but of dwarf growth.

Green Ischia.—Bore a light crop of fruit of poor quality. Tree a fine grower and perfectly hardy, but unproductive so far.

Angelique.—Bore a very light crop of fruit of excellent quality. Tree hardy, but of very dwarf habit.

White Marsailles.—Bore a light crop of fruit of poor quality. Tree hardy but not thrifty or productive.

Brunswick.—Bore no fruit. Tree hardy, but lacks vigor and productiveness.

Black Ischia.—Bore no fruit. Tree hardy and vigorous.

Lemon.—Bore no fruit. Tree tender and weak. Killed down every winter.

Madaleine.—Bore no fruit. Tree hardy, but lacks vigor and productiveness.

GRAPES.

Out of our list of grapes the following fruited this year at Baton Rouge :

1. *Amber*.—Cluster medium size and berries large, set compactly and of an amber color ; skin inclined to be tough and the pulp rather resistant ; vine grows well and also yields a good crop ; ripened July 10. At Calhoun it grew vigorously but rotted badly.

2. *Agawam*.—A prominent variety having dark red berries with a rich bloom ; bunches large and usually shouldered, compactly set with large berries ; skin is thin and the pulp is quite tender ; juicy, flavor fine ; slightly acid ; vine a healthy and vigorous grower and bears heavily. Ripened June 30.

3. *America*.—A new black grape of merit. Bunches are rather small but very compact ; berry of medium size, and of

rich black color. Pulp slightly colored and agreeable; vine grew very vigorously, but as this is its first season of bearing further notes are necessary to form a clear opinion of it. A promising variety. Ripe June 15.

4. *Black Eagle*.—This variety has large shouldered bunches, well set with large berries, black and covered with a rich bloom. They are quite sweet and very pleasant to the taste; vine a moderate grower and not very resistant to disease. Ripe July 10. At the North Louisiana Experiment Station, Calhoun, La., it fruited but rotted badly.

5. *Bacchus*.—Bunch small, very compact; berries small, intensely black, juicy and acid; skin rather tender and pulp resistant; in some localities used as a wine grape; vine very strong in growth and very free from disease; bears an abundant crop and ripens June 30.

6. *Brighton*.—Bunch is quite large and usually loosely formed; shouldered at the base and set with medium sized berries. These are reddish purple in color and have a beautiful bloom; skin is rather tender, as also is the pulp, which is juicy and not firm in texture; flavor is pleasant to the taste; vine is not a strong grower, but bears heavily. Ripened June 30. At Calhoun it succeeded well.

7. *Black July*.—Cluster medium sized and very compact; berry is small, rich black, acid; vine a rank grower and produces abundantly. Ripened July 6. At Calhoun it grew well and rotted some.

8. *Blanco*.—Clusters small, not shouldered and thickly set with creamy white berries of medium size; skin is thin and pulp is medium in texture and sweet and agreeable in flavor; they drop badly from the bunch; vine is rather weak in growth but bears well. Ripened June 15.

9. *Blood*.—Bunch small and well set with small, rich purple berries; the skin is thin and pulp jelly like; flavor slightly acid, but good; vine is a very substantial grower and bears well. Ripened July 13.

10. *Brilliant*.—Cluster is medium in size and shouldered; berries medium in size, closely set in the bunch; color a rich blush red, with a beautiful bloom; skin and pulp are both tender, and the latter is especially rich and sweet. Vine is not a strong grower, but bears plentifully; ripened July 7.

11. *Beagle*.—Cluster is medium sized and not shouldered; berry medium sized, and set rather closely; skin a rich purple; pulp sweet; a good early variety; vine grows well and also bears well; ripened June 20.

12. *Big Black*.—Cluster medium in size, and well set with large full purple black berries; skin medium, and pulp juicy and slightly acid; vine grows very well and bears moderately; ripened July 17.

13. *Black Hamburg*.—Cluster long and large, berry oblong, and of a purple color; skin and pulp easily eaten, and of a delightful texture and flavor; vine a poor grower, but bears heavily. In general it falls an easy victim to all our grape diseases, and was only saved this season by a constant application of fungicide; ripened July 7. At Calhoun its growth was not promising.

14. *Berckmans*.—Bunch is medium in size, well shouldered, and well set with medium sized, rich wine colored berries; flavor exceedingly fine; vine is a very vigorous grower, and bears a heavy crop; ripened July 10. A desirable variety in the vineyard. At Calhoun it succeeded finely.

15. *Clinton*.—Bunches medium in size, as are also the berries; color black, and flavor rather astringent; a good wine grape; vine the healthiest, and bears heavily; ripened July 8.

16. *Concord*.—Cluster large and shouldered; berries rich black, with a beautiful bloom, set well in the bunch; skin is tender, yet stands handling; pulp tender and very pleasant; a standard old variety; vine healthy and vigorous; bears well; ripened June 20. At Calhoun it grew finely and fruited well.

17. *Champion*.—Cluster is medium in size, not shouldered, but well set with large, deep purple berries, which have a heavy bloom; skin rather thick; pulp rich and juicy, but acid; vine

grows very well and produces heavily ; one of our very best early grapes ; ripened June 20.

18. *Cynthiana*.—Cluster large, and berries small and numerous ; color purple, and slightly acid ; pulp melting ; used for wine making ; vine is an extremely heavy grower, and also a very heavy yielder ; ripened July 4.

19. *Cottage*.—Cluster medium in size and commonly shouldered ; berries medium to large, rich black ; skin and pulp resistant ; flavor peculiar and musky ; vine is not a strong grower nor a heavy bearer, apt to be diseased ; ripened July 7.

20. *Catawba*.—Clusters are medium to large, shouldered ; berries are medium, not closely set ; color dark red ; an old standard variety in the North ; excellent flavor. Vine weak, crop rather poor. Ripened July 15.

21. *Campbell*.—Clusters large, berry medium in size, color white ; skin thin and a fine mealy pulp ; very sweet ; vine a small healthy growth ; crop light ; ripened June 20.

22. *Conelva*.—Cluster small, with small berries, color a fine purple ; skin medium, pulp very fine and sweet ; drops badly from the bunch ; vine grows well, not a heavy bearer. Ripened July 14.

23. *Duchess*.—Clusters small, berries medium and set loosely ; color white ; pulp slightly acid ; vine an extremely weak grower and very light crop. Ripened July 17. At Calhoun grew poorly and is not promising.

24. *Delaware*—Clusters small and closely set with small red berries. No description is needed of this popular and desirable grape. Its character and flavor recommend it to all ; vine grew well and produced a very good crop. Ripened June 27.

25. *Diana*.—Cluster medium in size, very compactly set with medium sized berries of a white blush color ; skin rather tough, but pulp is sweet and of a peculiar and agreeable taste ; vine grows and bears well. Ripened July 18. At Calhoun its growth was promising.

26. *Dracutt Amber*.—Cluster large and often shouldered ; berries large and closely set, color deep amber ; skin tough ; pulp melting and sweet, although it has a characteristic musky flavor ; vine grows vigorously and bears heavily. Ripened July 15.

27. *Eaton*.—Cluster medium sized and berries very large ; color a red amber ; pulpy and juicy, sweet and pleasant ; vine grew well and produced a moderate crop. Ripened July 10.

28. *Early Victor*.—Clusters medium, also berries ; color rich purple ; flavor decidedly acid ; vine grows well and produced a good crop. Ripened June 20. A very early variety.

29. *Eumelan*.—Cluster rather large, but ragged, as the berries do not set well, probably due to the flower having recurved stamens ; berry is small, but has a very sweet and pleasant flavor ; color is a good purple ; vine is of rather weak growth. Ripened June 3. At Calhoun it grew fairly well but is not promising.

30. *Early Market*.—Cluster small and set openly with medium sized purple berries ; skin thin, and pulp juicy ; is sweet, but not attractive ; vine grows finely, but yields moderately ; ripens June 21.

31. *Empire State*.—Clusters small, and berries medium sized, white, and a medium skin and pulp ; very sweet and attractive ; vine grows and yields fairly well ; ripened July 10.

32. *Eltira*.—Cluster large, and thickly set with large, very light amber colored tender berries ; flavor sweet and peculiar ; vine is a very strong grower and produces well ; ripened July 1.

33. *Grein's Golden*.—Cluster medium ; berry large, fleshy and sweet ; color white, slightly on the yellow ; vine a weak grower and producer ; ripened July 5.

34. *Goethe*.—Clusters are large ; berries oblong, large, pink and sweet ; skin and pulp are tender ; vine healthy and prolific ; ripened July 10. At Calhoun it grew well but rotted some.

35. *Golden Gem*.—Cluster small and berry medium ; color cream white, juicy, a trifle acid, and pleasant ; vine not a strong grower, nor a heavy producer ripened July 4.

36. *Gold Coir*.—Cluster medium, shouldered; berries well set and medium in size; color a rich golden amber; skin thin and strong; flavor very sweet and pleasant; vine healthy and comparatively free from disease; ripened July 10.

37. *Hermann*.—Bunch medium, berries small and black; flavor acid, grown for wine; vine a rank grower, and bears abundantly, free from disease comparatively; ripens July 30.

38. *Highland*.—Bunch large and shouldered; berry also large, color black, pulpy and acid, but of considerable excellence; vine grows well and produces an average crop; ripened July 25. At Calhoun it grew well, but was diseased some.

39. *Hartford*.—Clusters medium sized and sometimes shouldered; berries black, with rich bloom, and medium sized; skin moderately tender, as well as pulp; sweet and desirable; a standard old sort; vine grows and bears well; ripened June 20.

40. *Herbert*.—Cluster medium in size and not shouldered; well set with large, rich black berries, making a beautiful bunch; berry is slightly acid, but very pleasant; texture of both skin and pulp inclined to be tough; vine a moderate grower and producer; ripe June 25. At Calhoun its growth was promising.

44. *Herbemont*.—Cluster very large and shouldered; berry is small, of very fine quality; color dark purple; texture is good; making a very good table grape; it is also good as a wine grape; vine one of the most vigorous growers; ripe July 15.

42. *Hilgard*.—Cluster small and berry medium sized; purple and agreeable. Not doing well this season as is indicated by slow growth and badly dropping its berries; ripe July 1.

43. *Hussmann*.—Cluster small and very compactly set, with medium sized purple berries; skin and pulp medium in texture; flavor slightly acid and pleasant; vine not a strong grower nor yielder; ripe July 14.

44. *Ives*.—Cluster medium to large shouldered sometimes; berries medium sized, inclined to be large; pulp sweet and pleasant; skin black; vine grows vigorously and bears well; ripened June 29.

45. *Iona*.—Cluster is medium sized, not shouldered; berry is large; a good red with purple like bloom, slightly acid but very nice and tender; vine grows and yields well; ripe July 4. At Calhoun its growth was promising.

46. *Jefferson*.—Cluster small, covered well with medium sized, rich amber colored berries; texture is tender and flavor peculiar, rich and sweet; vine grew well and yielded a small crop; ripe July 17.

47. *Jacquez*.—Bunch is very large and long; berry small and blackish purple; flavor very acid; a wine grape; vine grows vigorously and yields well; ripe July 17.

48. *Lady Washington*.—Cluster very large and shouldered, openly set with medium sized berries; color creamy white; skin thin and transparent; texture soft and very sweet; does not keep well, but is an excellent table grape; vine is a good healthy grower and yields heavily; ripe July 10. At Calhoun it grew fairly well, but is apt to be diseased.

49. *Lady*.—Cluster is medium in size; berry is also medium, white and very sweet. It was one of the first to ripen and produced an excellent crop; vine a rather small grower; ripened June 20.

50. *Lindley*.—Cluster medium to large, shouldered, and unless well pollinated not very well set with berries; berries are large, deep amber red, tender, musky, but pleasant; has a beautiful appearance; grows and yields well; ripe June 25. At Calhoun it grew well with no rot.

51. *Moore's Diamond*.—Cluster large, shouldered and rather open; berries medium sized, sweet and with thin skin; color, a beautiful white; vine a moderate grower, but a heavy producer; ripe June 26. A grape of the finest quality and one we recommend.

52. *Martha*.—Cluster medium sized, berry also; color a creamy white when fully ripe, and has a fine flavor; a fine table variety; vine rather delicate, both in growth and yield; ripened July 10. At Calhoun its growth was medium, with some disease.

53. *Missouri Riesling*.—Cluster large, berry medium sized; white, and has a peculiar attractive sweet flavor; vine is healthy, grows well and is prolific; a desirable grape; ripened July 15.

54. *Merrimack*.—Cluster medium size, set with very large, amber colored sweet berries; skin very tough and pulp tender; vine grows well and is comparatively free from disease; yields heavily; ripe July 4. At Calhoun it grew strongly, fruit free from rot.

55. *Moore's Early*.—Cluster medium to large, commonly shouldered, set with rich blue black berries, rather large and of excellent texture and flavor. It is one of our very best early black grapes, of moderate growth and yield; ripened June 18.

56. *Montefiore*.—Cluster medium sized, compact; berries medium to large, rich purple, acid; vine grows well and is hardy; yields a medium crop; ripe July 6.

57. *Massasoit*.—Cluster medium in size, and berries large, pulpy, sweet and of a peculiar flavor; color a rich dark red; vine a good grower and heavy producer; ripened June 25. At Calhoun it grew vigorously, but was considerably diseased.

58. *Moyer*.—Cluster rather small and quite similar to the Delaware, both in cluster and berry, except it is larger and earlier; berries are small to medium in size, exceedingly sweet, and in all a desirable variety; vine a rather delicate grower and bears well; ripened June 20.

59. *Mason's Seedling*.—Cluster small and berries medium, color white with a green tinge, flavor a rich slightly acid; texture very good; vine and yield moderate; ripe July 1.

60. *Niagara*.—One of our best white grapes; bunch very large and shouldered; berries large and set closely on the compact bunch; skin white, rather thick and tough; flesh soft and pulpy; flavor good; vine a vigorous grower and very healthy; ripened July 6. At Calhoun it was almost a failure.

61. *Noah*.—Cluster good sized and shouldered; berries medium, color white, and very acid, not pleasant to eat unless fully or quite over ripe; heavy grower and moderate yielder; ripened July 15.

62. *Norton's Virginia*.—Cluster small and berry medium, color a good purple; decidedly a wine grape; vine a heavy grower and producer; ripened July 17. At Calhoun it grew vigorously, with no disease.

63. *Pocklington*.—Cluster medium in size, color pale golden white; berry also medium, and compactly set, texture tender and fine, flavor excellent; growth weak, but yield good; ripened June 25.

64. *Perkins*.—Cluster medium, not shouldered; berry rather large, light amber in color, juicy, sweet and tender; vine a very vigorous grower, and bears heavily; ripe July 8.

65. *Poughkeepsie*.—Cluster small, also the berries, quite similar to the Delaware; almost an entire failure on account of unhealthy growth; a few berries ripened June 25.

66. *Peter Wyllie*.—Bunch small to medium; berry medium, and of a golden white color, quality and texture of the best; growth good, but product small; ripened July 5.

67. *Pres. Lyon*.—Cluster small, and well filled with medium sized berries, color a handsome purple, texture good and flavor sweet; a grape of good quality, but is a rather weak grower and bearer; ripened June 20.

68. *Prentiss*.—Cluster small and thickly set with berries, medium to large in size, color a very faint blush white; not an attractive grape; flavor is medium, and quality below the average; growth and yield moderate; ripened July 2.

69. *Progress*.—Cluster large, and berry medium in size, a rich red color, with a tough skin and sweet tender pulp; an attractive grape; growth rather weak and yield light; ripened July 1.

70. *Solemi*.—Cluster large, not shouldered, berry large and moderately well set, color a rich, dark red, skin tough, pulp meaty and tender, flavor attractive, sweet and musky; growth and yield heavy; ripened July 6. At Calhoun it grew well, but was slightly diseased.

71. *Sweet Mountain*.—Cluster medium and berry well set and small, color a greenish white, skin and pulp tender, flavor very

sweet, and in all one of the finest grapes we have; growth rather delicate and easily diseased; yield good; ripened June 25.

72. *Telegraph*.—Cluster large but not shouldered, berry medium sized, color black with a purple bloom, thickly set in the bunch, texture inclined to be tough, slightly acid, but sweet and agreeable; liked by many; growth and yield excellent; ripened June 25. At Calhoun its growth was vigorous and promising.

73. *Triumph*.—Cluster very large and shouldered, berry large and closely set, color white, tender and sweet; an excellent grape for the middle of July here; growth and yield fine; ripened July 17. One of our best grapes.

74. *T. B. Hayes*.—Cluster and berry small, color white, tender skin and pulp, very sweet; growth and yield very poor; ripened July 1.

75. *Ulster Prolific*.—Bunch small to medium and berry the same, color rather a bright red, skin and pulp tender, quality fair; growth medium and yield heavy; ripened July 17.

76. *Van Deman*.—Cluster medium in size and elongated, berries medium and compactly set, color bright purple, skin medium and pulp jelly like, flavor slightly acid but sprightly; a new grape of promise; vine is a very healthy grower and bears well; ripened July 16.

77. *Vergennes*.—Cluster small, not shouldered, berry medium in size, light amber color, slightly acid, skin and pulp inclined to be tough; vine a delicate grower and yield small; ripened July 6.

78. *Wilders*.—Cluster very large and shouldered, berry very large, color rich, dark purple, heavy skin and pulp, flavor peculiar and pleasant; a fine grape; growth and yield good; ripened July 10. At Calhoun its growth was good and promising.

79. *Walter*.—Cluster quite large and berry also, color a rich purple, good bloom, texture tender and flavor sweet; vine grows and bears well; ripened July 7.

80. *Woodruff Red*.—Cluster medium, shouldered; berry medium, of a light red color and tender skin and pulp; quality

better than Wyoming Red ; growth not vigorous nor yield heavy ; ripened July 17.

81. *Wyoming Red*.—Cluster medium, seldom shouldered ; being often scattering and quite similar in color to Woodruff Red and somewhat smaller ; texture inclined to be tough and flavor peculiarly sweet and distinct ; vine is a better grower than Woodruff Red, but not so prolific ; ripened July 18.

82. *Worden*.—Cluster large and shouldered ; berry also large and in many respects like the Concord ; color deep purple ; fine texture and flavor ; did not do well on account of being badly diseased ; ripe July 17.

83. *Zinfandel*.—Cluster large to very large ; berries medium in size ; a purple black in color and decidedly acid ; very badly diseased and a failure ; some clusters ripened July 4 ; weak grower.

Failures.—Mrs. Munson and Etta.

The foregoing list embraces eighty-five varieties of grapes, and although this is the first crop we have had, a few recommend themselves to us as varieties worthy of planting, especially in the home garden. These are : Moore's Diamond, Moyer, Champion, Concord, Herbemont and Sweet Mountain. But, we wish to state positively that our success the past season was due, in absolute certainty, to the persistent and thorough applications of fungicides. A number of these were used, but preference is given to the Standard Bordeaux mixture for the first part of the season, followed up later on as the grapes grow more with the Ammoniacal solution.

It was only with persistent efforts that we were able to save a number of varieties. On the whole our crop was excellent, and called forth admiration and favorable comment from all visitors. The systems of training employed are : high renewal, low renewal, Munson, horizontal arm spur, alternate arm spur, and the two cane, four cane, six cane, and umbrella Kniffin systems.

As these will form the subject of a few notes to be published soon, no more will be said concerning them except that our choice at present is with the Munson system.

In addition to the notes found with the description of varieties of grapes, the following varieties were grown at Calhoun :

| VARIETY. | REMARKS. |
|---------------------|---------------------------------------|
| Alvey..... | Growth promising. |
| Allen's Hybrid..... | " promising. |
| Anadna..... | " fair. |
| Belinda..... | " vigorous ; no disease. |
| Barry..... | " medium ; not promising. |
| Black Zante..... | " fair. |
| Blue Favorite..... | " strong and healthy. |
| Black Pearl..... | " promising. |
| Canada..... | " promising. |
| Emily..... | " fair ; some disease. |
| Excelsior..... | " fair ; some disease. |
| Fanny..... | " strong and vigorous ; some disease. |
| Faith..... | " fair. |
| Grein's No. 4..... | Failure. |
| Grein's No. 31..... | Growth fair. |
| Grein's No. 53..... | " fair. |
| Irving..... | " fairly good ; fruit rotted. |
| Louisiana..... | " weak and diseased. |
| Maxtawney..... | " ordinary. |
| Mrs. McLure..... | " ordinary ; some rot. |
| Miles..... | " good. |
| Missouri..... | " medium ; not promising. |
| Othello..... | Failure. |
| Peabody..... | Not promising. |
| Rulander..... | Strong, vigorous and healthy. |
| Rogers' No. 8..... | Promising. |
| Rogers' No. 31..... | Fair. |
| Rogers' No. 37..... | Not promising. |
| Rogers' No. 39..... | Failure. |

No grapes are grown at Audubon Park.

ORANGES.

At Baton Rouge only a few varieties have heretofore been grown, and none of these have as yet fruited. They have, however, proven sufficiently hardy to withstand the severities of the last five winters. In the order of their hardiness they may be named as follows : Satsuma, Kewachi and Dai Dai—all Japanese varieties. In the winter of 1892-1893 they lost their leaves when the thermometer reached 19° F. This winter they have sustained no injuries from the cold.

Encouraged by this experience, the Station has recently planted two trees of each variety given elsewhere in this bu

letin—one of each planted upon the north side of the library building and totally unprotected; the other upon the south side and sheltered by the library. These trees are budded on the sour and trifoliata stocks.

At Audubon Park the citrus grove continues to grow finely and many varieties bore fruit for the first time. The very low temperature (21° F.) reached in the winter of 1892–1893 killed all of the limes, lemons and citrons, most of the pomelos, and a few of the oranges. Unfortunately many of the early plantings of this grove were made without regard to the stock upon which the trees were budded. It is now known that many of them were budded on the "rough lemon" stock, and it is believed that nearly all of the orange trees lost by the freeze were budded on this stock. To test the adaptability of the various stocks to our soil and climate, the following experiments have been inaugurated. Six leading and popular varieties of oranges were selected and budded upon five different kinds of stocks, viz.: Sour orange, sweet orange, rough lemon, grape fruit and citrus trifoliata. Two trees of each variety upon each stock have been so planted as to occupy every shade of soil in the orchard. They are doing nicely, and hopes are entertained of ultimately determining the fitness of each stock for profitable cultivation in Louisiana. The power of resisting that dread disease, "Mal di goma" (foot rot), the ability to withstand the vicissitudes of our climate, as well as the adaptability to our soil, in both growth and fructification, must all be considered. Indeed, if the experiments can be carried to a successful issue, they must furnish valuable information for the orange grower. The varieties selected are "Parson Brown," "Boone's Early," "Homosassa," "Jaffa," "Du Roi," and "Washington Navel."

EXPERIMENTS IN FERTILIZERS.

Little is known as to the manurial requirements of the orange tree on our soils. To test this question the following experiments have been instituted, which will require several years for a satisfactory solution. Three of our leading varieties, budded on the sour stock, viz., "Parson Brown," "Jaffa," and "Wash-

ington Navel," have been planted in equal quantities upon six rows. These six rows will be fertilized differently, so as to ask the question directly whether this soil needs nitrogen, phosphoric acid or potash to grow oranges profitably. Also whether a combination of two of the above ingredients will supply the demand, or shall they all be furnished in every fertilizer designed for the orange tree. These fertilizers will be applied to each particular row until the question is solved.

Row No. 1 has received sulphate of ammonia, at rate of one-half a pound to a tree. This fertilizer, and this alone, will be applied to this row in the future, increasing yearly the quantity per tree, as the growth demands.

Row No. 2 will be treated similarly with dissolved bone black.

Row No. 3 with sulphate of potash.

Row No. 4 will receive no manure, and will be used as a measure of the unaided soil.

Row No. 5 will receive sulphate of ammonia and dissolved bone black.

Row No. 6 will receive the same as No. 5, with the addition of sulphate of potash.

Otherwise the treatment of this part of the grove will be identical.

PEACHES AT BATON ROUGE.

1. *Amsden*.—Ripe June 3; resembles the Alexander; a good early peach, greenish white and very juicy.

2. *Amelia*.—Ripe June 15; quite large, pointed, white with large red cheek, flavor very marked; too soft for a market peach, but excellent for the home orchard; freestone.

3. *Burke*.—Ripe July 7; similar in every way to Chinese Cling; a very large cling, yellow with light blush cheek, flesh white, blood red at pit.

4. *Berenice*.—Ripe July 1; a good sized peach with yellow skin, slightly marked with red, and yellow flesh; a juicy freestone; tree a fine grower.

5. *Clingman's May*.—Ripe May 30; a large white fleshed cling with red cheek, with a rich juicy flesh of good flavor; one of our best very early varieties.

6. *Countess*.—Ripe July 10; a medium sized fruit; white with white flesh, quite tender, juicy and free; one of the varieties attacked the most severely by the peach curculio.

7. *Crawford's Early*.—Ripe July 7; medium to large, yellow with a beautiful red cheek; flesh rich yellow, fine flavor, free; an old variety.

8. *Crawford's Late*.—Ripe June 9; this tree is not at all true to name, as it produced a small pointed fruit, white skin with red cheek, flesh white, very sweet, and a clingstone, a very fair peach, but not in any way resembling the Early Crawford.

9. *Chinese Cling*.—Ripe July 10; a very large, nearly round, yellowish white peach with slight blush; flesh nearly white, very juicy and rich, a thorough cling, and red at the pit; one of our most excellent peaches.

10. *Downing*.—Ripe May 29; a medium sized freestone peach, white with red cheek; flesh nearly white; quality fair; tree a good grower and producer.

11. *Dwarf Japan Blood*.—Ripe May 22; small to medium in size, deep red, pointed and downy; flesh blood red, rich and sweet, free, but apt to be mealy if left on the tree until over ripe; tree of dwarf habit and enormously productive.

12. *Eaton's Gold*.—Ripe July 17; small, round and yellow, with rich yellow flesh, very rich and juicy, free; moderate bearer.

13. *Early Rivers*.—Ripe June 7; a large tender peach, white with slight blotch of red, small point, free; flesh very white, sweet and delicious; a good variety for home, but not for market.

14. *Elberta*.—Ripe June 30; skin golden yellow with a full red cheek; large, pointed and free; flesh deep yellow, fine texture, and of the best flavor; very prolific and, in all, one of the finest peaches we have.

15. *Florida Crawford*.—Ripe July 30; a freestone, resembling the Crawford's Late, yellow with red cheek; flesh also yellow, juicy and of good flavor; medium in size and not a very heavy bearer as yet.

16. *General Lee*.—Ripe June 30; this resembles the Chinese Cling very much, very large; skin almost white, slight touch of red, very juicy and of excellent flavor; good for market and home; one of our best growers and producers.

17. *General R. E. Lee*.—Ripe June 29; Similar in every way to the above; a member of the Chinese Clings.

18. *Gen. Taylor*.—Ripe June 15; Size medium; skin a striking red with a heavy red cheek; almost round with a slight point; flesh slightly reddish from the pit out, solid, firm, a good keeper and will stand shipment well; a pronounced cling; tree a healthy grower and heavy bearer; one of our best peaches.

19. *Hales Early*.—Ripe June 10; large, red with a dark cheek, has a small point and a heavy down; flesh creamy and almost free, medium in firmness, texture and flavor; bears well.

20. *Imperial*.—Ripe July 5; similar to the Honey; size medium to large, color yellowish green, with oftentimes a slight blush cheek; flesh white and very juicy, free and quite tender in skin; heavy bearer.

21. *Kite's Honey*.—Ripe July 7; a small to medium-sized peach, oblong and a rather long point, color almost white, with slight touch of red, flesh white, tender and free; not a profitable variety here, although very prolific.

22. *Lemon*.—Ripe July 7; a medium-sized, very yellow-fleshed, yellow-colored cling, very juicy, crisp and of fine flavor; makes an attractive appearance in market.

23. *Onderdonk*.—Ripe August 1; a rather small fruit, color yellow, with yellow flesh, free, very sweet and juicy; a good growing tree, but not very prolific as yet.

24. *Orlando*.—Ripe June 6; medium in size, having a full crease and a small point, color white, with a small red cheek, flesh white; cling, pink at the pit and of very good quality.

25. *Old Mixon Free*.—Ripe July 14; a large white peach, with a slight tinge of red, almost round in shape, flesh white, solid and juicy; a freestone of long-standing merit.

26. *Old Mixon Cling*.—Ripe July 19; a medium-sized, rather oblong peach, color nearly white, with a slight blush; very juicy and desirable.

27. *Pallas*.—Ripe June 1; medium in size, nearly round, color, yellowish red, flesh almost white and peculiar, pleasant flavor; is free and grows well.

28. *Peen To*.—Ripe June 1; a flattened peach, similar to a tomato in shape, with a small pit; color nearly white, with slight blush; flesh nearly white, juicy, with a pleasant flavor and cling; blooms too early for this locality, and is almost sure to be hurt by late freezes; also subject to severe attacks of the curculio.

29. *Reeves' Favorite*.—Ripe June 29; medium in size, dark yellow, with red cheek, pointed; flesh free, yellow and very sweet; flavor fine; a good bearer.

30. *Susquehanna*.—Ripe June 20; size large, color nearly white, with considerable red; pointed and very downy, crease pronounced, flesh cream colored, pink at pit, free; pit is extra large; tree is a good grower and prolific.

31. *Thurber*.—Ripe July 7; a very large freestone peach, color white, slightly streaked with yellow and red, flesh white; full of juice and luscious; tree a healthy grower and produces an abundance of very fine peaches.

32. *Yum Yum*.—Ripe June 2; medium in size, slightly elongated, creased, but with no point; color whitish yellow, with slight tinge of red; flesh white, cling, somewhat pink at the pit; it is a rather tender peach, drops easily, and is subject to the attacks of the curculio.

As stated in the preface to this report our orchard is very young and bearing its first crop, therefore there will be some things which it will be necessary to correct in another season or two.

From this list several excellent varieties may be chosen for general planting. Most of the Peen Tos should, as a rule, be avoided, in our judgment, as not only are they liable to be

caught by frosts—blooming, as they do, in January—but their skin seems to be preferable for the cureulio to puncture. From their behavior this past season the following list commends itself to our judgment:

Clingmans' May, Dwarf Japan Blood, Chinese Cling, General Lee, Early Rivers, Elberta and General Taylor.

For the cureulio, we have not practiced jarring, but will do so the coming season. Spraying with arsenites has been followed, but with very little satisfactory results. Our most serious pest, however, is the peach borer, and it is due to the ravages of this troublesome insect that our trees are short-lived and sickly. For a full account of this insect and the best methods of dealing with it, see Pr. t. Morgan's Entomological Report.

PEACHES AT THE NORTH LOUISIANA EXPERIMENT STATION.

| VARIETY. | Began Blooming. | Began Ripening. | Remarks. Etc. |
|---------------------|-----------------|-----------------|---|
| Alexander..... | March 8 | May 25 | Very fine; full crop; rotted badly. |
| Early Beatrice.... | March 8 | May 28 | Good; small; full crop; very little rot. |
| Early Louise..... | March 8 | May 31 | Very good; full crop; rotted badly. |
| Early Rivers..... | March 8 | June 8 | Very fine; full crop; very little rot. |
| Early Hale..... | March 8 | June 10 | Ordinary; full crop; rotted very badly. |
| Fleitas..... | March 3 | June 18 | { Very good; slight crop; badly affected by cureulio |
| Amelia..... | March 8 | June 18 | Very good; light crop. |
| Pallas..... | Feb. 20 | June 20 | Ordinary and light crop and poor. |
| Honey..... | Feb. 22 | June 21 | Worthless; crop ruined by cureulio. |
| Early Crawford.... | March 10 | June 28 | Good; moderate crop. |
| Stamp the World.. | March 8 | June 30 | Only ordinary; crop light. |
| Thurber..... | Feb. 27 | June 30 | Good; crop light; damaged by cureulio. |
| Old Mixon..... | March 10 | July 1 | Good; light crop. |
| Newington..... | March 11 | July 2 | Very good; full crop. |
| Elberta..... | Feb. 25 | July 5 | Very good; light crop. |
| General Lee..... | Feb. 28 | July 6 | Good; poor crop. |
| Jackson..... | Feb. 28 | July 10 | Very good; crop light. |
| Sylphide..... | Feb. 28 | July 10 | Very good; crop light. |
| Oriole..... | Feb. 28 | July 10 | Ordinary; light crop. |
| Pine Apple..... | March 8 | July 10 | Ordinary; light crop. |
| Crawford's Late... | March 8 | July 15 | Good; light crop. |
| Columbia..... | March 10 | July 20 | Ordinary; poor crop. |
| Stevens' Rare Ripe. | Feb. 23 | July 20 | Worthless; crop very poor. |
| Indian Blood..... | March 8 | July 20 | Worthless. |
| Picquett's Late.... | March 8 | July 30 | Ordinary; full crop. |
| Juno..... | March 8 | Aug. 2 | Good; full crop. |
| Oceola..... | March 8 | Aug. 2 | Ordinary; full crop. |
| Cora..... | March 10 | | Failed. |
| Darby's..... | March 8 | | Failed. |
| Tinsley's..... | March 8 | | Failed. |

PEACHES AT AUDUBON PARK.

The Honey, Peen To, and seedlings of the latter, Bidwell's Early and Late, Angel, Maggie, Reeves' Mammoth, Yum Yum, Mott's Free and Waldo have been planted upon both peach and plum stocks. The former are all living and doing well, while every one of the latter are dead, dying in winter, after making a good year's growth. Of the above, the Honey, Waldo and Reeves' Mammoth bloom late enough to escape the frost, and are promising. The rest, by early blooming, are very uncertain.

PEARS AT THE NORTH LOUISIANA EXPERIMENT STATION.

Smith.—Hybrid; fruit medium; greenish yellow, with minute brown dots; flesh, cream yellow; flavor good; texture fine; tree very hardy; has shown no tendency to blight yet (5 years); bore an excellent crop of fruit for its age.

Le Conte.—Fruit large; distinctly pyriform; greenish yellow; flesh white; flavor good; texture rather coarse; tree very hardy and has shown no tendency to blight; bore a very light crop, and most of it was broken off by winds; specimens examined showed signs of rotting at core

Several other varieties, viz: Bartlett, Kieffer, Daimio and Petite Marguerite bore some fruit, but the fruit disappeared before notes could be made on them.

PERSIMMONS AT BATON ROUGE.

The Japanese Persimmons are growing nicely, but only a few have matured their fruit. It is quite evident that the varieties on the horticultural grounds are considerably confused as to name. This will be seen by the following:

1. *Among.*—The fruit of this tree plainly shows it to be misnamed as it is an oblong fruit, 2 to 3 inches long, and 1 to 2 inches in diameter, with a blunt point; hence it probably is the *Hachiya*. It is quite prolific; ripened in October.

2. *Hyakume.*—This is a very large variety; nearly round; about 3 inches in diameter; tree bears when young; October.

3. *Nero Zami.*—Is somewhat smaller and more flattened than *Hyakume*; very palatable when ripe; slow grower.

4. *Kurokume*.—Large and flattened ; full of juice and of good quality.

This fruit when its value is known better and a market developed, will find a ready sale, especially in the north.

PERSIMMONS OR KAKI (JAPANESE), AT THE NORTH LOUISIANA
EXPERIMENT STATION.

Hachiya.—Medium to large ; globular ; deep yellow ; skin thick, but soft ; flesh tender and juicy ; flavor agreeable ; tree strong and hardy, but of dwarf habit ; bore about a dozen specimens.

Miyotan (synonym : *Mazelli*) —Medium, too large ; round ; some specimens oblong ; skin deep yellow, thick and tough ; flesh very firm and solid ; dark brown color ; very few small seeds. The flavor is good, and when well ripened has the aroma of the Apricot ; texture solid and would bear shipping ; tree very hardy and an upright, stout grower.

Tsuru No-Ko (Stork egg). (Synonym : *Minokaki*).—Fruit medium to large ; oblong ; skin bright yellow and thick ; surface smooth ; flesh dark yellow ; soft and stringy ; seeds few and small ; no cavities ; the calyx adheres firmly to fruit ; flavor good after frost has touched it, but before, there is much astringency ; handsome ; tree hardy and exceedingly productive.

Costata.—Medium ; conical ; deep yellow ; very fleshy and solid ; few small seeds ; astringent before becoming ripe ; a good keeper.

PLUMS—NATIVE

1. *Robinson*.—Commenced to ripen July 10, at Baton Rouge. A small light red plum, very good for canning as well as to eat out of hand ; tree a very heavy bearer and slow grower ; fruit continued to ripen until August. Of little value at Audubon Park.

2. *Wild Goose*.—Large and elongated ; bright red ; ripe July 12, at Baton Rouge. A very showy and juicy plum ; quite popular ; tree a strong grower ; attacked with fungus on leaf at Audubon Park ; fruit fair.

PLUMS—JAPANESE.

1. *Burbank*.—Ripe June 1, at Baton Rouge. A good sized, round plum; color greenish purple, with one side darker; flesh yellow, of fine slightly acid flavor; pit very small and easily detached; keeps well; skin rather tough; tree a heavy bearer. A great success at Audubon Park.

2. *Botan*.—Ripe June 13, at Baton Rouge; round, with a very slight point; colored more with yellow than the Burbank; flesh yellow and very sweet; tree a good grower. A slim bearer at Audubon Park.

3. *Chabot*.—Ripe July 18, at Baton Rouge. A large, nearly round, dark yellowish green plum, with a purple cheek; flesh very yellow; solid and quality good; pit clings more than the Burbank.

4. *Hay Tan Kio* —Ripe June 25 at Baton Rouge; very similar to the Chabot, except earlier; is large, red-cheeked, pit small, flesh light yellow, slightly acid; tree a healthy grower.

5. *Hattankio*.—Ripe May 31 at Baton Rouge; is medium-sized, pointed, color yellow and flesh yellow; juicy and good flavor; tree a strong, upright grower.

6. *Kelsey* —Ripe July 20 at Baton Rouge; a very large plum, about eight inches in circumference, pointed, color yellowish green and red cheek; flesh is solid and yellow, pit very small; tree a very strong grower and enormous bearer; one of the most remarkable varieties grown; rots badly at Audubon Park; one of earliest to bloom.

7. *Satsuma*.—Ripe June 15 at Baton Rouge; fruit large, almost round; very dark blood, skin and flesh; very juicy and quality the best; tree a fine grower; a shy bearer at Audubon Park.

8. *True Sweet Botan* —Ripe June 10 at Baton Rouge; similar in every way and in all probability identical with Botan.

9. *Prunus Simonii* —Ripe June 10 at Baton Rouge; a large, tomato shaped red plum, with firm, yellow flesh and a remarkable characteristic flavor; pit small, tree very upright in growth and a shy bearer; a novelty every one should grow.

There is no longer any doubt but that the Japanese Plums are decided acquisitions to the orchards of the Louisiana fruit growers. They adapt themselves so readily to our soils and climate, and bear an abundance of very large, luscious plums, that the fruit grower cannot but become attached to them.

The Burbank, Satsuma and Botan form a trio very hard to beat, and as time goes on these probably will, in a large measure, take the place of our Native Plums.

P. Simonii is one of the most remarkable fruits we have. Its size, shape, texture and flavor make it most interesting.

The following notes on Plums were obtained at the North Louisiana Experiment Station :

| VARIETIES. | Date of Blooming. | Date of Ripening. | REMARKS, ETC. |
|------------------|----------------------|----------------------|---|
| De Caradene.... | Feb. 28 | May 28 | Large and fine; crop light; ruined by curculio. |
| Mariana | Feb. 24 | June 1 | Good; full crop; damaged by curculio. |
| Robinson..... | March 7 | June 20 | Ordinary; full crop; free from curculio. |
| Masn (Jap.).... | March 21 | June 22 | Ordinary; crop light; rotted badly. |
| Pottawattamie .. | March 23 | June 30 | Ordinary; large crop; rotted badly. |
| Newman | March 7 | June 30 | Ordinary; light crop. |
| Cumberland..... | March 20 | July 18 | Good; full crop; some rot. |
| Miner's | March 25 | July 18 | Ordinary; light crop; no rot. |
| Kanawha | March 20 | July 20 | Good; small; free crop; no rot. |

QUINCES.

These have been fruited only at Baton Rouge.

1. *Angers* —A thrifty growing quince producing a medium sized fruit nearly pear shaped; ripe in October.

2. *Champion*.—Only a few specimens were obtained, these were large and nearly round; October.

3. *Reas' Mammoth*.—October; a very large fine quince; full of promise.

These are the only varieties which have fruited. They are all ready growers and the one objection to them is the liability of the fruit rotting before getting fully ripe.

VARIETIES OF STRAWBERRIES

| Number. | Name. | Character of Flavor. | First Bloom. | First Ripe. | First Picking. | Best Picking. | Last Picking. | Yield. |
|---------|----------------------|----------------------|--------------|-------------|----------------|---------------|---------------|--------|
| 1 | Bederwood..... | S. | Feb. 5 | March 18 | March 28 | April 24 | June 18 | 3 |
| 2 | Belle..... | S. | March 25 | May 1 | May 16 | May 29 | June 10 | 1 |
| 3 | Belmont..... | S. | Feb. 15 | March 30 | April 6 | May 1 | June 17 | 4 |
| 4 | Bomba..... | P. | Feb. 28 | March 25 | March 28 | June 7 | June 17 | 4 |
| 5 | Bubach..... | P. | Feb. 18 | March 19 | March 30 | June 3 | June 13 | 2 |
| 6 | Bubach No. 5..... | P. | Feb. 10 | March 30 | April 3 | June 7 | June 17 | 6 |
| 7 | Bubach No. 21..... | S. | Feb. 7 | March 25 | April 1 | April 18 | May 23 | 1 |
| 8 | Bubach No. 132..... | S. | March 1 | March 25 | March 31 | May 5 | June 3 | 2 |
| 9 | Capt. Jack..... | S. | Feb. 21 | March 18 | March 30 | April 27 | June 3 | 10 |
| 10 | Carmichael..... | P. | Feb. 8 | March 30 | April 6 | May 4 | May 23 | 8 |
| 11 | Chas. Downing..... | S. | Feb. 15 | March 30 | April 1 | April 21 | June 8 | 8 |
| 12 | Clingto..... | S. | Feb. 8 | March 13 | March 30 | April 27 | June 17 | 5 |
| 13 | Cloud..... | P. | Feb. 8 | March 20 | March 25 | May 1 | June 17 | 10 |
| 14 | Coville..... | S. | Feb. 22 | March 13 | March 30 | June 1 | June 15 | 3 |
| 15 | Crawford..... | S. | Feb. 21 | March 30 | April 8 | May 1 | June 3 | 5 |
| 16 | Crescent..... | P. | Feb. 6 | March 5 | March 15 | April 20 | June 17 | 10 |
| 17 | Crimson Cluster..... | P. | March 1 | April 1 | April 1 | April 18 | May 13 | 5 |
| 18 | Crystal City..... | S. | Feb. 7 | March 15 | March 30 | April 20 | May 26 | 1 |
| 19 | Cumberland..... | S. | Feb. 22 | March 30 | April 11 | April 20 | June 3 | 5 |
| 20 | Daisy..... | P. | Feb. 8 | March 30 | April 1 | April 29 | May 26 | 4 |
| 21 | Enhance..... | S. | Feb. 21 | March 24 | April 1 | May 6 | June 17 | 9 |
| 22 | Eureka..... | P. | Feb. 7 | March 18 | April 5 | April 23 | June 15 | 6 |
| 23 | Excelsior..... | S. | Feb. 6 | March 20 | March 30 | April 24 | June 13 | 9 |
| 24 | Farnsworth..... | S. | Feb. 8 | March 25 | March 30 | May 6 | June 3 | 3 |
| 25 | Felton..... | S. | | | | | | |
| 26 | Florence..... | S. | | | | | | |
| 27 | Gandy..... | S. | Feb. 6 | March 25 | April 6 | May 29 | June 17 | 5 |
| 28 | Gold..... | P. | March 1 | April 8 | April 20 | April 30 | May 26 | 5 |
| 29 | Great American..... | S. | Feb. 6 | March 15 | March 18 | May 4 | June 20 | 5 |
| 30 | Great Pacific..... | P. | Feb. 8 | March 14 | March 30 | May 1 | June 17 | 9 |
| 31 | Gypsy..... | S. | March 1 | April 18 | April 24 | May 1 | May 16 | 4 |
| 32 | Hamden..... | P. | Feb. 9 | March 30 | April 15 | May 6 | June 3 | 3 |
| 33 | Hatfield..... | S. | Feb. 9 | March 27 | April 1 | May 23 | June 1 | 7 |
| 34 | Haverland..... | P. | Feb. 20 | March 21 | April 10 | May 4 | June 14 | 2 |
| 35 | Henderson..... | S. | Feb. 18 | March 28 | April 10 | June 13 | June 20 | 3 |
| 36 | Hoffman..... | S. | Feb. 8 | March 10 | March 18 | April 15 | June 7 | 10 |
| 37 | Indiana..... | S. | Feb. 8 | April 18 | April 20 | May 26 | June 13 | 3 |
| 38 | Ivanhoe..... | S. | Feb. 8 | March 25 | April 1 | April 6 | May 26 | 2 |
| 39 | James Vick..... | S. | Feb. 18 | March 30 | April 3 | June 3 | June 13 | 6 |
| 40 | Jessie..... | S. | Feb. 6 | March 25 | March 30 | April 28 | June 18 | 4 |
| 41 | John Little..... | P. | Feb. 21 | March 10 | March 15 | May 29 | June 17 | 10 |
| 42 | Jucunda..... | S. | Feb. 2 | March 29 | April 1 | April 3 | June 1 | 9 |
| 43 | Logan..... | S. | | | | | | |
| 44 | Louise..... | S. | Feb. 8 | March 10 | March 30 | May 1 | June 17 | 10 |
| 45 | Lovett's Early..... | S. | Feb. 24 | April 1 | April 6 | April 29 | May 13 | A |
| 46 | Manchester..... | P. | | | | | | |
| 47 | Mark..... | S. | Feb. 20 | April 15 | April 29 | May 6 | May 23 | 3 |
| 48 | May King..... | P. | Feb. 8 | March 10 | March 18 | April 24 | June 10 | 4 |
| 49 | Miami..... | S. | Feb. 21 | March 30 | April 8 | May 29 | June 13 | 4 |
| 50 | Michel's Early..... | S. | Feb. 4 | March 10 | March 18 | June 3 | June 13 | 5 |
| 51 | Middlefield..... | P. | Feb. 22 | March 26 | March 30 | May 26 | June 7 | 3 |
| 52 | Monmouth..... | S. | Feb. 21 | April 3 | April 6 | June 1 | June 13 | 2 |
| 53 | Mt. Vernon..... | S. | Feb. 8 | March 15 | March 30 | May 1 | June 13 | 2 |
| 54 | Mrs. Cleveland..... | P. | Feb. 8 | March 25 | March 30 | April 30 | June 10 | 7 |
| 55 | New Hampden..... | S. | Feb. 8 | March 28 | March 31 | May 1 | June 3 | 2 |
| 56 | Ohio..... | P. | Feb. 18 | April 15 | April 20 | May 21 | June 17 | 2 |
| 57 | Ohio Centennial..... | S. | Feb. 21 | April 15 | April 29 | May 6 | May 23 | 2 |

GROWN AT BATON ROUGE.

| Shape. | Size. | Color. | Flavor. | Texture. | Injury by Leaf Blight on Scale of 10. |
|-------------------|------------|-----------------|---------------|------------|---------------------------------------|
| round | small | light red | poor | | 4 |
| round & irregular | very large | bright red | good | soft | failure |
| round | medium | bright red | good | firm | 2 |
| round | medium | crimson | under | soft | 4 |
| broad | very large | light | below average | soft | comply free |
| irregular | very large | light | acid | firm | 2 |
| irregular | large | bright | medium | medium | 1 |
| lobed | large | light | medium | medium | 1 |
| conical | medium | dark red | medium | firm | 9 |
| round & pointed | large | dark red | good | firm | 1 |
| round | medium | bright | pronounced | firm | 2 |
| round | large | light | good | firm | 3 |
| round | medium | dark | fine | firm | free |
| long | medium | light | acid | soft | 8 |
| round | medium | scarlet | acid | firm | 9 |
| round | large | bright | medium | firm | 1 |
| round | small | bright crimson | below | firm | 2 |
| round | small | light crimson | acid | firm | 4 |
| round | very large | light | good | soft | 1 |
| round | very large | light | good | soft | 2 |
| irregular | large | light | medium | firm | 3 |
| irregular | large | dark | good | firm | 8 |
| round | large | light | fine | firm | 5 |
| round | small | dark | below | soft | 5 |
| failure | | | | | ----- |
| round | large | light | fine | failure | ----- |
| pointed | medium | light | acid | firm | 4 |
| long | very large | brigt | acid | firm | 8 |
| comical | large | solid red | excellent | medium | 1 |
| pointed | small | white | peculiar | soft | 1 |
| irregular | large | red | medium | soft | 4 |
| pointed | small | light | medium | medium | 5 |
| long | large | scarlet | good | medium | 2 |
| rather long | long | scarlet | excellent | firm | 3 |
| round | medium | dull red | acid | firm | 2 |
| round | large | light | acid | firm | 6 |
| round & irregular | large | bright crimson | good | firm | nearly free |
| round | medium | rich red | good | firm | 1 |
| round | large | dark | under | soft | 8 |
| round | medium | light red | fine | firm | 1 |
| ball shaped | large | bright | medium | medium | 5 |
| failure | | | | | ----- |
| irregular | immense | dark crimson | good | failure | ----- |
| very few berries | almost an | entire failure. | | firm | 1 |
| failure | | | | | ----- |
| conical | large | bright | medium | soft | 4 |
| round | large | bright | medium | firm | 1 |
| irregular | medium | bright | medium | good | 4 |
| round | small | bright | medium | medium | nearly free |
| round | large | dark red | good | firm | 3 |
| round | very large | light | below | firm | 1 |
| round | large | dark red | medium | r'ther sft | 5 |
| round | very large | bright | poor | soft | 1 |
| irregular | large | red | good | soft | 2 |
| irregular | medium | red | acid | firm | 8 |
| round | large | light | under | medium | 3 |

VARIETIES OF STRAWBERRIES

| Number. | Name. | Character of Flavor. | First Bloom. | First Fruit. | First Picking. | Best Picking. | Last Picking. | Yield. |
|---------|------------------------|----------------------|--------------|--------------|----------------|---------------|---------------|--------|
| 58 | Ontario..... | S. | Feb. 18 | March 30 | April 10 | May 4 | June 10 | 2 |
| 59 | Parker Earle..... | S. | Feb. 15 | April 22 | April 27 | May 9 | May 23 | 5 |
| 60 | Pearl..... | S. | Feb. 7 | March 25 | April 4 | April 6 | May 26 | 5 |
| 61 | Pine Apple..... | S. | Feb. 14 | March 20 | April 6 | April 24 | June 17 | 2 |
| 62 | Pioneer..... | S. | Feb. 2 | March 25 | April 1 | May 25 | June 19 | 4 |
| 63 | Prince of Berries..... | S. | Feb. 1 | March 25 | March 30 | May 6 | June 3 | 4 |
| 64 | Rio..... | S. | Dec. 2 | March 4 | April 15 | April 30 | June 3 | 3 |
| 65 | Sadie..... | P. | Feb. 26 | March 18 | March 30 | April 8 | June 1 | 10 |
| 66 | Sharpless..... | S. | Feb. 22 | March 27 | April 3 | June 1 | June 17 | 4 |
| 67 | Shuster's Gem..... | P. (?) | Jan. 30 | March 13 | April 1 | May 1 | June 13 | 10 |
| 68 | Stayman's No. 1..... | S. | Feb. 28 | March 25 | April 8 | May 6 | May 23 | 8 |
| 69 | Stevens..... | S. | Dec. 29 | March 1 | March 18 | April 25 | June 1 | 10 |
| 70 | Tippecanoe..... | S. | Feb. 6 | March 27 | April 1 | April 27 | May 21 | 2 |
| 71 | Viola..... | S. | Feb. 8 | March 17 | March 30 | June 1 | June 14 | 4 |
| 72 | Warfield No. 1..... | P. | Feb. 8 | March 20 | March 30 | April 27 | June 17 | 8 |
| 73 | Warfield No. 2..... | S. | Feb. 2 | April 1 | April 6 | June 3 | June 21 | 5 |
| 74 | West Lawn..... | P. | Feb. 9 | March 18 | March 30 | April 27 | June 7 | 9 |
| 75 | Wilson..... | S. | Feb. 2 | April 10 | April 2 | May 1 | June 11 | 1 |
| 76 | Yale..... | S. | Feb. 2 | April 10 | April 2 | May 1 | June 11 | 1 |

The foregoing is the record of the whole list of strawberries. The custom has been to follow the *matted row* system and mulch very heavily in order to keep the "coco" down as well as protect the berries from the ground. We find this also to be the best treatment we could possibly give our plants in order to prevent injuries from droughts. The material we use is the grass cut from the roadsides of our plots which seems to answer the purpose admirably. In the classification used in the condensed record it will be seen that the letters "S." and "P." have been used to designate the character of the flowers.

A much better classification would probably be "Perfect" and "Imperfect," but as the most common form followed is pistillate and staminate we have also used it. As there are no truly staminate varieties to be found in our beds, the exact truthfulness of calling a perfect flowered variety *staminate* is questionable. Perfect flowered varieties also are known as Bisexual, which is to be preferred perhaps to staminate; however, we have used the classification staminate, including those varieties having stamens and pistils, and pistillate, including those in which the

GROWN AT BATON ROUGE.—CONTINUED.

| Shape | Size. | Color. | Flavor. | Texture. | Injury by Leaf Blight on Scale of 10 |
|------------------|------------|---------------|---------------|----------|--------------------------------------|
| irregular | large | dark | under | soft | 2 |
| long | medium | bright | good | firm | 3 |
| round | large | crimson | under average | soft | 3 |
| long and pointed | large | very light | average | firm | 1 |
| broad & pointed | very large | dark crimson | average | firm | 1 |
| round | large | dark red | fine | firm | nearly free |
| round & pointed | medium | bright | acid | firm | 1 |
| round and long | medium | dark | average | firm | 1 |
| ideal | large | dull red | acid | medium | 4 |
| pointed & broad | large | bright | good | firm | nearly free 0.5 |
| round | large | light | fine | firm | nearly free |
| round | medium | bright red | fine | firm | 5 |
| irregular | large | bright | below average | firm | 1 |
| pointed | medium | dark red | acid | failure | 4 |
| pointed | medium | bright | acid | firm | 5 |
| irregular | large | light crimson | fine | firm | comply free |
| round | medium | bright red | acid | firm | 1 |
| round | large | dark red | acid | firm | 9 v'y serious |

stamens are missing. As the pistillate varieties will not bear when planted alone, it is always advisable to plant a staminate variety in every third row of the bed, thus insuring an abundant supply of pollen. It is found that Michel's Early fills this office well, as it bears an unusual amount of pollen. As the most prolific strawberries, as a rule, are pistillate, this method of intermingling staminate varieties must be strictly adhered to in order to obtain abundant crops. The varieties we would recommend in Central Louisiana are those which have proven themselves to be in the highest degree desirable for growing in this locality. The soil, especially in its relation to the supply of moisture, has such a great bearing upon the selection of varieties of this fruit, that we could not give a set of varieties for general planting in the State until more information in that regard could be obtained. We would recommend the following as a list for a succession of good strawberries:

For earliest berries: Rio S., Michel's Early S., Stevens' S.

Followed by Cloud P., Hoffman S., John Little P., Crescent P. (?), Chas. Downing S., Capt. Jack S., Louise S., Pioneer S.

The best combination so far obtained for a general crop as well as one which will supply a full crop through the season, is the Cloud and Michel's Early. These are Southern berries and give a great deal of satisfaction when planted in this way. Of the newer varieties we find the Rio (Thompson No. 9), and West Lawn (Bauer's No. 7), to be full of promise.

From an extended list and fairly good trial the past two seasons, the North Louisiana Experiment Station offers the following list to select from in order to obtain the best results in North Louisiana:

| | | |
|----------------|----------------|--------------|
| Belmont, S. | Haverland, P. | Monmouth S. |
| Capt. Jack. S. | Henderson, S. | May King, S. |
| Crescent, P. | Kentucky, S. | Ohio, P. |
| Excelsior, S. | Mt. Vernon, S. | Pioneer, S. |

The soil in North Louisiana is well suited for the profitable culture of strawberries, and this being the case, it is heartily recommended that every home should have a plat of strawberries.

BLACKBERRIES.

1. *Brunton*.—Ripened May 6; a medium sized, very prolific berry; not a very vigorous grower.
2. *Everbearing*.—Bore fruit from March 15 until June 20; berries very small and inferior in texture and flavor.
3. *Kittatiny*.—Ripened fruit from April 20 until June 15; quite prolific and large in size.
4. *Snyder*.—Ripened May 20; berry medium in size and not very prolific; however, quality is of the best.

DEWBERRIES.

1. *Braden*.—This is a medium sized, cream white, colored dewberry of somewhat harder texture than the black varieties, but possessing a very attractive flavor; prolific, but smaller in growth also; ripened April 18 and yielded a quantity of attractive looking fruit.
 2. *Coleman*.—Very similar to the Braden, but whiter in color; prolific and excellent in flavor; ripened April 17.
 3. *Lucretia*.—This old standard variety ripened May 4 and yielded a few large luscious berries; growth has been weak.
 4. *Manatee*.—This yielded ripe fruit from April 14 until May 15; it is an extremely heavy bearer of immense luscious berries, some of which were two inches in length; altogether it is a very desirable sort and worthy of extended culture.
- Goumii*.—Elegant longstripes. The fruit of this plant ripened May 10. It was heavily loaded with small, rather astringent fruit of a peculiar amber red color; a fruit used for making jelly and sauce.

Gooseberry.--The only variety which ripened any fruit this season was the *Houghton*, the fruit of which ripened June 4.

It is a hard matter for this fruit to exist at the Station as the seasons and climate are not at all adapted to its growth.

RASPBERRIES.

1. *Cuthbert*.--Berries large and a pretty light red color; ripened May 8; quite prolific and does well.

2. *Golden Queen*.--Berries large, few and of a golden yellow color; very sweet and luscious; not growing well; ripened June 4.

3. *Lovetts*.--Ripened May 10; berries medium in size, black and fine; a weak growing plant.

4. *Progress*.--Ripened May 6; berries large, black and quite prolific; the healthiest growing raspberry at the Station.

Like the gooseberries, the raspberries are weak and poor growing plants in this section of Louisiana.

Japanese Wineberry.--Ripened May 15; berries a bright red and not at all attractive; the bush, however, may become useful as an ornament.

The following small fruits have been added to the list at the North Louisiana Experiment Station:

BLACKBERRIES.

| | | |
|---------------|---------------------|-----------------|
| Snyder. | Kittatinny. | Wilson's Early. |
| Ever-bearing. | Brunton. | Dallas. |
| | Manatee (Dewberry). | |

RASPBERRIES.

| | | |
|---------------|-----------------------------|--------|
| Golden Queen. | Lovetts. | Tyler. |
| Progress. | Child's Japan (Wine Berry). | |

The following varieties of fruits were newly set this season at Baton Rouge:

ALMONDS.

| | |
|---------------------|----------|
| From Berckmans, Ga. | |
| Princess. | Sultana. |

APPLES.

Buckingham, from Clingman, La.
Carter's Blue, from Berckmans, Ga.
Jenning's Florida, from Taber, Florida.

FIG.

Mandana, from A. K. Clingman, Homer, La.

GRAPES.

Early Ohio, from Curtis & Co., Portland, N. Y.
South Florida.

MYRICA RUBRA.

From the United States Department of Agriculture.

NECTARINE.

Early Violet, from T. V. Munson, Denison, Tex.

ORANGES.

From Florida and Milwaukee Co., Dunedin, Fla.

| | | |
|-------------------|----------------|------------|
| Boone's Early. | Homosassa. | Jaffa. |
| King. | Maltese Blood. | Ruby. |
| Parson Brown. | Sutsuma. | Mandarin. |
| Washington Navel. | | Tangerine. |

PLUMS.

From Clingman's nurseries :

| | | |
|--------------|------------|----------------|
| Caddo Chief. | Excelsior. | Golden Beauty. |
|--------------|------------|----------------|

PEACHES.

From G. L. Taber, of Glen St. Mary, Fla.:

| | | |
|----------|------------|---------|
| Colon. | Ferdinand. | Triana. |
| Sangmel. | | Taber. |

From Denison, Texas, T. V. Munson, proprietor :

| | | |
|------------|--------------------|-----------|
| Alexander. | Stonewall Jackson. | Sylphide. |
| | Wonderful. | |

PERSIMMONS.

From G. L. Taber, Glen St. Mary, Fla.:

| | | |
|----------|----------------|---------------|
| Tsuru. | Okame. | Tane Nashi. |
| Costata. | Taber No. 23. | Taber No. 72. |
| | Taber No. 129. | |

PRUNES.

From G. L. Taber, Glen St. Mary, Fla.:

| | |
|---------|----------|
| D'Ente. | Italian. |
|---------|----------|

POMEGRANATES.

| | | |
|-------------|----------------|-------------|
| Hermosillo. | Purple Seeded. | Saharanpur. |
| Sour. | Sweet. | |

STRAWBERRIES.

Gratis from Frank Ford & Son, Ravenna, Ohio :

| | | |
|---------|------------|-------------|
| Dayton. | Eclipse. | Greenville. |
| Miner. | Muskingum. | Vandeman. |
| | Wolverton. | |

Seeds were received gratis from the following firms :

J. M. Thorburn & Co., New York.

The Northrup, Braslan, Goodwin Co., Minneapolis, Minn.

United States Department of Agriculture.

Peter Henderson & Co., New York.

W. Atlee Burpee & Co., Philadelphia, Pa.

Sprayer from P. C. Lewis, Catskill, N. Y.