1892

Results of 1891 obtained on the State Experiment Station, Baton Rouge, La.

David Nicholas Barrow

SECOND SERIES.

No. 17.

BULLETIN

OF THE

AGRICULTURAL EXPERIMENT STATION

OF THE

LOUISIANA STATE UNIVERSITY AND A. AND M. COLLEGE,

AT

BATON ROUGE, LA.

WM. C. STUBBS, Ph. D., Director.

RESULTS OF 1891,

OBTAINED ON THE

State Experiment Station,

BATON ROUGE, LA.

D. N. BARROW, B. S., Assistant Director.

BATON ROUGE, LA.
PRINTED AT THE TRUTH BOOK AND JOB OFFICE.
1892.

LOUISIANA STATE UNIVERSITY AND A. & M. COLLEGE.

BUREAU OF AGRICULTURE.

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

Hon. ——— ———, Commissioner of Agriculture, Baton Rouge, La.:

DEAR SIR—I hand you herewith partial results of experiments obtained on State Experiment Station, and ask that they be published as Bulletin No. 17.

Respectfully submitted,
WM. C. STUBBS,
Director.

STATE EXPERIMENT STATION,
Baton Rouge, January, 1892.

Dr. Wm. C. Stubbs, Director:

DEAR SIR—I hand you herewith the annual report of this Station for the year 1891. The past season has been a phenomenal one in the alternation of extremely dry and extremely wet weather, thus placing an unusual amount of difficulties in the way of satisfactory results. A perusal, however, we trust, will not be found entirely devoid of interest.

Very respectfully,
D. N. BARROW,
Assistant Director.

REPORT.

STATE EXPERIMENT STATION,
Baton Rouge, La., January, 1892.

The season just ended has been phenomenal for extremes. It opened with copious showers, lasting well into February—thus preventing that careful preparation of soil, so essential to good crops. Then the rains suddenly gave way to bright sunshine and a drought, the length and severity of which, will long be remembered by all of our farmers and planters. It was well into June before seasonable rains fell. Planting was therefore forced upon cloddy land—with the usual results, bad stands. Superadded to this a severe freeze of three days' duration occurred on the 1st of April, cutting down early corn, destroying tender vegetables and killing all fruit buds.

After June excessive precipitation again occurred, followed for awhile with normal conditions. The season ended with another dry spell, favorable for gathering the crops, shortened greatly by the vicissitudes through which it had passed. In such a season poor stands are inevitable, and the action of fertilizers reduced to a minimum.

The investigations of previous years have been continued, with a few alterations and some additions. The results have again been very unsatisfactory and our deductions are rather suggestions than positive instructions. The results of the three previous years are also given, so that a comparison of each year, together with the average, may be made.

EXPERIMENTS IN CORN

were of three kinds—Varieties, Physiological and Manurial.

VARIETIES.

Fourteen different kinds of corn were planted March 27, '91, and owing to the very dry weather both germination and growth were so modified that comparison of results would be misleading. Several of them were replanted with field corn after failure to obtain anything like a stand.

PHYSIOLOGICAL.

The best distance to plant corn both in the drill and width of row was tried with only partial success. Rows were laid off 4 and 5 feet wide, and on each corn was dropped respectively 1½ and 2 feet apart, and carefully covered with the hoe and rolled. A good stand was obtained. When the corn was 6 inches high, it was thinned carefully by hand so as to leave in each set of rows one stalk and two stalks at intervals of 1½ and 2 feet apart. The following are the results:

TABLE SHOWING DIFFERENT WIDTHS OF ROWS AND DISTANCES IN ROWS.

Number of Experiment.	Width of rows.	Distance in drill.	Stalks to hill.	Shuck corn, pounds.	Grain, bushels.
1	4 feet.	18 inches.	1	3146	42.1
2	4 feet	18 inches.	2	3422	45.8
3	4 feet.	2 feet.	1	3422	45.8
4	4 feet	2 feet.	2	3588	48.0
5	5 feet.	18 inches.	1	4140	55.4
6	5 feet.	18 inches.	2	3532	47.3
7	5 feet.	2 feet.	1	3477	46.5
8	5 feet.	2 feet.	2	3201	42.8

The above indicates that for this season, and on this land, one stalk, 18 inches apart, in 5 foot rows, has given the largest results. Had the seasons been more favorable a closer planting might have been more profitable. As a rule, in this climate, it is scarcely prudent to plant closer than 18 inches in the drill and 5 feet in the row. Could we insure water in sufficient

quantities whenever needed, close planting could doubtless be practiced with great profit.

FLAT CULTIVATION.

Experiments of last year have been repeated, slightly modified. The four experiments have been reduced to one—*i. e.*, one stalk of corn to each hill. The land was laid off in checks 3x4 feet, giving each stalk 12 square feet of surface. The results this year were 52.7 bushels per acre against 42.4 bushels for 1890.

The excess in yield this year over last, is due primarily to difference of seasons. Last year was excessively wet and unfavorable to flat cultivation. This year the reverse obtained and moisture was conserved by this method.

BEST TIME TO FERTILIZE CORN.

1. Shall the fertilizer be all given at once and before planting?

2. Shall the fertilizer be given in part before planting and rest at time of thinning?

3. Shall the fertilizer be given in part before planting—a part at thinning out and rest at last working?

Four hundred pounds per acre of an equal mixture of cotton seed meal and acid phosphate were selected as the fertilizer.

In Experiment No. 1 { It was applied in drill, just before planting.

In Experiment No. 2 { One half was applied in drill, just before planting. / One half was applied at time of thinning out the corn.

In Experiment No. 3 { One-third was applied in drill, just before planting. / One-third was applied at time of thinning out the corn. / One-third was applied at time of last working.

The very protracted drought prevented the full assimilation of the fertilizer, and hence results are very misleading. No. 1, giving 40.6 bushels; No. 2, 48 bushels, and No. 3, 36.9 bushels per acre.

FERTILIZERS FOR CORN.

What fertilizing ingredients does this soil need to grow corn, and in what form and quantity are these ingredients applied? are questions which this Station has been trying for three years to solve. The variability of our seasons prevents the solution of this important question in a year or two. To eliminate the important factor of climate a series of years is needed. Accordingly experiments covering these questions have again been conducted. A plat has again been devoted to each ingredient—Nitrogen, Phosphoric Acid and Potash. By great pains there was obtained a perfect stand in rows 5 feet apart and 2 feet in the drill.

It was cultivated with "Mallon's disc cultivator" and a double mould board plow. The seasons were unfavorable to full effect of the fertilizers and hence results are not conclusive. The following tables give the fertilizers used, with yield per acre for seasons '88, '89, '90 and '91, and the averages of these years:

CORN—PLAT 9—EXPERIMENTS IN POTASSIC FERTILIZERS.
YIELD PER ACRE.

No. of Experiment.	How Fertilized.	Pounds plant food supplied.			Bushels of grain.				
		Nitrogen.	Phos. Acid.	Potash.	1888.	1889.	1890.	1891.	Average.
1	Meal phosphate* 168 pounds kainite	19.8	54.2	24.5	51.9	41.5	39.7	33.4	41.6
2	Meal phosphate 336 pounds kainite	19.8	54.2	44.6	68.4	51.8	50.9	48.7	54.9
3	Meal phosphate	19.8	54.2	4.4	57.7	48.7	49.3	45.5	50.3
4	Meal phosphate 42 pounds muriate potash	19.8	54.2	26.3	60.1	52.5	51.7	45.0	52.3
5	Meal phosphate 84 pounds muriate potash	19.8	54.2	48.2	56.0	50.3	50.9	46.5	50.9
6	Meal phosphate	19.8	54.2	4.4	41.1	38.4	49.3	37.5	41.5
7	Nothing	....	....	....	47.9	44.1	39.7	33.7	41.3
8	Meal phosphate 42 pounds sulphate potash	19.8	54.2	16.5	57.7	44.1	51.1	41.2	48.5
9	Meal phosphate 84 pounds sulphate potash	19.8	54.2	28.6	57.7	51.9	47.1	48.7	51.3
10	Meal phosphate	19.8	54.2	4.4	58.9	52.5	52.4	41.2	51.2
11	280 pounds acid phosphate 196 pounds cotton seed meal 49 pounds nitrate potash	....	50.2	....	58.3	51.8	49.3	37.5	49.2
12	280 pounds acid phosphate 84 pounds cotton seed meal 98 pounds nitrate potash	....	47.2	....	55.4	40.8	51.7	33.7	45.4

*Meal phosphate—280 pounds acid phosphate; 280 pounds cotton seed meal.

A close and careful inspection of the foregoing will show that the excess in the experiments containing potash is due to local conditions of the soil rather than to the presence of this ingredient. It may be asserted with positiveness that potash has had little or no effect upon the corn in this soil.

CORN—PLAT 10—EXPERIMENTS IN PHOSPHATIC FERTILIZERS.
YIELD PER ACRE.

No. of Experiment.	How Fertilized.	Pounds plant food supplied.			Bushels of grain.				
		Nitrogen.	Phos. Acid.	Potash.	1888.	1889.	1890.	1891.	Average.
1	Basal mixture* + 280 pounds dissolved bone	22.0	56.7	4.4	54.7	42.5	41.1	26.2	41.1
2	Basal mixture + 560 pounds dissolved bone	24.2	103.4	4.4	60.9	46.5	46.5	37.5	48.3
3	Basal mixture	19.8	10.0	4.4	59.0	50.5	41.1	37.5	47.0
4	Basal mixture + 280 pounds acid phosphate	19.8	44.2	4.4	55.4	42.9	51.7	45.0	48.7
5	Basal mixture + 560 pounds acid phosphate	19.8	88.4	4.4	56.9	49.8	51.0	45.7	50.8
6	Basal mixture	19.8	10.0	4.4	57.7	49.8	48.7	41.2	49.3
7	Nothing	....	....	....	54.8	50.5	39.0	37.5	45.4
8	Basal mixture + 280 pounds bone meal	29.8	59.0	4.4	58.9	57.7	51.7	52.5	55.2
9	Basal mixture + 560 pounds bone meal	39.8	118.0	4.4	44.6	53.4	50.2	52.5	50.1
10	Basal mixture	19.8	10.0	4.4	56.0	51.1	47.2	42.8	49.2
11	Basal mixture + 140 pounds gypsum	19.8	10.0	4.4	58.3	53.7	44.0	39.0	48.7
12	Basal mixture + 280 pounds gypsum	19.8	10.0	4.4	53.1	46.5	41.1	30.0	42.6

* Basal mixture—280 pounds cotton seed meal; 347.2 pounds kainite.

The stand on experiments 1 and 2 was not good, hence it would not be just to pass judgment upon them. It will be seen that the column of averages runs pretty closely and the cause of this is soon found by inspecting the column for 1888. The fertilizers made no show in this year. It will be remembered that this was the first year of the Station's occupancy of its present quarters and the land having been idle for a long while and having an abundance of vegetable matter in it was able to amply supply the plant food for this crop, hence the fertilizers had little or no effect. This disturbing factor was still present, though to a less degree, in 1889. In '90 and '91, however, the fertilizers begin

to assert themselves and if the language of these two years is to be accredited phosphoric acid has more than paid for itself. Experiment No. 7 on which no fertilizer was used gave respectively for '90 and '91 39.0 and 37.5 bushels of grain. Where basal mixture is used this is increased to 48.7 and 41.2. A further examination of these two years will reveal the fact that, with the exceptions of 1 and 2, there is an increase in yield wherever phosphoric acid is used. Referring to plat 9 we find that while there are no grounds for attributing it to potash yet there is an increase over "nothing" whenever fertilizers were used. But this increase is scarcely greater in the presence of potash than where only the meal phosphate was used. In the light of what we have just seen from the study of plat 10, it is but fair to attribute at least a portion of this increase to the phosphoric acid present in the meal phosphate. The largest yields for '91 were obtained in 8 and 9 where bone meal was used. The next in 4 and 5 with acid phosphate as the bearer of phosphoric acid. The bone meal has been used on the same land for the past four years so a part of this increase must be accredited to the applications of former years.

CORN—PLAT 11—EXPERIMENTS IN NITROGEN—YIELD PER ACRE.

No. of Experiment.	How Fertilized.	Pounds plant food supplied.			Bushels of grain.				
		Nitrogen.	Phos. Acid.	Potash.	1888.	1889.	1890.	1891.	Average.
1	Mixed minerals* 79.8 pounds nitrate soda	11.0	44.2	41.6	57.7	36.1	39.0	42.7	43.8
2	Mixed minerals 159.6 pounds nitrate soda	22.0	44.2	41.6	66.4	52.1	49.5	48.7	54.1
3	Mixed minerals 53.2 pounds sulphate ammonia	11.0	44.2	41.6	57.7	46.5	44.2	45.0	48.3
4	Mixed minerals 106.4 pounds sulphate ammonia	22.0	44.2	41.6	53.1	45.5	51.0	41.2	47.7
5	Mixed minerals 112 pounds dried blood	11.0	44.2	41.6	57.7	47.3	42.7	46.5	48.5
6	Mixed minerals 224 pounds dried blood	22.0	44.2	41.6	61.0	48.1	44.2	37.9	47.8
7	Mixed minerals 140 pounds fish scrap	11.0	71.8	41.6	61.0	50.1	36.0	47.2	48.5
8	Mixed minerals 280 pounds fish scrap	22.0	94.2	41.6	53.4	49.2	45.6	43.5	47.9
9	Mixed minerals 168 pounds cotton seed meal	11.0	48.4	44.2	62.3	37.5	37.5	36.0	45.2
10	Mixed minerals 336 pounds cotton seed meal	22.0	56.4	46.8	56.0	42.5	45.0	42.7	46.5
11	Mixed minerals 504 pounds cotton seed	11.0	....	....	57.7	37.6	37.5	45.0	44.4
12	Mixed minerals 1008 pounds cotton seed	22.0	....	....	57.7	40.9	22.0	30.7	37.8

*Mixed minerals—280 pounds acid phosphate; 347 2 pounds kainite.

The above in the absence of any comparative experiments with mixed minerals alone, can answer only the comparative benefits of different forms of nitrogen. It is very clearly shown that no form of nitrogen has any decided advantage, and that any of the above forms may be used with indifference in our fertilizers for corn. Our present information leads us to assert that a fertilizer containing nitrogen and phosphoric acid meets all the requirements of corn on this soil.

COTTON.

The experiments with this plant were with varieties and manurial requirements.

VARIETIES.

On April 8, twenty-five varieties of cotton, obtained from every available source, were planted. Good stand of one stalk o every 2 feet in the drill in 5-foot rows was obtained. The

pickings were divided into three periods, so as to compare the relative earliness of the different varieties. They were all carefully ginned on a small 20-saw gin and percentages of lint, seed and trash determined. The following table gives the results in the order of their yield of seed cotton per acre:

VARIETIES OF COTTON—YIELD PER ACRE AND PERCENTAGES OF LINT AND SEED.

Name of Variety.	Total yield per acre of seed cotton.	Percentage of yield at			Per cent. of lint.	Per cent. of seed.	Per cent. of trash.	Pounds of lint per acre.
		First picking	Second picking	Third picking.				
	lbs.							
Boyd's Prolific	2436	45	45	10	30.1	67.2	2.7	733
*Fishburn's	2296	28	42	30	30.4	65.8	3.8	697
Haggaman's	2296	40	36	24	30.4	65.8	3.8	697
Peerless	2184	37	41	22	30.1	69.2	.7	657
Welborn's Pet	2148	54	33	13	30.3	69.0	.7	649
Bolivar County	1548	58	31	11	29.5	69.6	.9	446
Dickson	1548	36	47	17	31.0	68.1	.9	594
Truitt's Improved	1764	32	45	23	30.9	68.2	1.8	545
*Allen's Long Staple	1764	36	49	15	29.3	69.8	.9	516
*Southern Hope	1680	20	43	37	29.1	70.0	.9	488
Brannon	1652	32	45	23	33.0	66.1	.9	545
Okra	1568	45	25	30	31.2	67.8	1.0	482
*W. J. Cook	1428	50	38	12	27.4	72.5	.6	391
Hawkins	1372	48	33	19	33.6	65.3	2.1	460
Brooks' Improved	1344	54	29	17	32.3	64.5	3.2	434
Peterkin	1316	31	32	37	31.1	68.0	.9	409
*Tennessee Gold Dust	1288	66	34	....	29.3	67.3	3.4	377
Mexican	1236	34	44	22	28.4	68.1	.5	351
Petit Gulf	1204	38	47	15	30.1	69.7	.2	362
*Ellsworth	1148	46	43	11	31.1	65.8	3.1	357
*Coltharp's Eureka †	1064	26	74	....	30.2	68.4	1.4	321
Texas Storm and Drought Proof	1008	35	32	33	31.9	63.8	4.3	321
Herlong	952	49	39	12	30.5	61.7	7.5	293
*T. J. King †	868	72	21	7	25.9	74.1	....	224
*Howell †	798	66	34	....	34.2	63.1	2.7	272

* Long staple.

† Received too late to give a fair trial. Will be thoroughly tested this year.

FERTILIZERS FOR COTTON.

Experiments similar to those given under corn were made with cotton to determine the same questions. Owing to the

prevailing drought in early spring defective stands were obtained and the results actually obtained would be misleading. Calculated results based upon actual stands to required stands have been made and recorded and when the series of years through which these experiments are designed to extend, shall have ended, will be used in summing up the average. At present it is necessary only to note the corroboration of past assertions, that this soil needs both nitrogen and phosphoric acid to grow cotton in maximum quantities.

FORAGE CROPS.

GRASSES AND CLOVERS.

A large number of these crops have been grown this year upon the Station—descriptions, yields and adaptation to this soil will be found in a special bulletin on grasses, etc.

SUGAR CANE.

A number of foreign varieties of sugar cane have been grown with the view of determining after acclimation their comparative merits with our home cane. The following stalk analyses, made by Prof. B. B. Ross, of a few of the leading varieties will show progress in the acquisition of sucrose:

ANALYSES OF SUGAR CANES

Name	Kind.	Total solids.	Sucrose.	Glucose.	Solids not sugar.	Purity coefficient.	Glucose ratio.	Per ct. extraction.
Home Purple	Stubble	18.1	15.7	1.43	.97	86.74	9.11	68.37
Black Java	Stubble	17.6	15.1	1.36	1.15	85.79	8.94	69.57
Pupuha	Stubble	18.5	15.3	2.30	.90	82.70	15.03	68.83
Pupuha	Plant	17.1	14.1	2.25	.85	82.45	15.95	70.24
Striped Mexican	Stubble	17.6	14.1	1.90	1 60	80.11	13.49	70.11
Kokea	Stubble	17.0	12.9	2.50	1.60	75.88	19.38	67.05
Crystallina	Stubble	16.5	12.6	3.00	.90	76.36	23.81	71.10
Crystallina	Plant.	17.8	13.5	3.46	.84	75.84	25.63	71.80
Otaheite	Stubble	17.0	11.6	3.70	1.70	68.23	31.90	69.62
Lahaina	Stubble	16.5	11.5	3.40	1.60	69.69	29.56	76.50
Lahaina	Plant.	15.2	9.6	4.00	1.80	64.63	37.73	73.34
Loucier	Stubble	15.2	11 4	2.51	1.29	75.00	22.01	71.32
Rose Bamboo	Plant.	15.1	10.7	1.50	2.90	70.86	14.01	72.51
Cavengerie	Stubble	14.5	9.8	3.10	1.20	67.58	35.11	71.88

ROTATION OF CROPS.

Four years ago a system of rotation with andwithout fertilizers, consisting of oats, peas, cotton and corn was instituted. One acre was taken for each experiment, making six acres in all or two sets of three acres each. The following gives the rotation with yield for last four years.

	Fertilized.	Unfertilized.
1888—Cotton yield	520 pounds per acre.	392 pounds per acre.
1889—Corn yield	38.9 bushels per acre.	40.1 bushels per acre.
1890—* Oats and peas yield	.....	.....
1891—Cotton yield	540 pounds per acre.	478 pounds per acre.
1888—Corn yield	43.4 bushels per acre.	42.7 bushels per acre.
1889—† Oats and peas yield	.....	.....
1890—Cotton yield	505 pounds per acre.	397 pounds per acre.
1891—Corn yield	25.1 bushels per acre.	20.3 bushels per acre.
1889—Cotton yield	420 pounds per acre.	478 pounds per acre.
1890—Corn yield	42.7 bushels per acre.	53 bushels per acre.
1891—‡ Oats and peas yield	.....	.....

*Killed by freeze in March. †Lost in barn by burning. ‡Now growing.

	Pounds.
Average of fertilized plats in cotton	496
Average of unfertilized plats in cotton	436
Excess due to fertilizers	60

	Bushels.
Average of fertilized plats in corn	37.5
Average of unfertilized plats in corn	39.0
Excess of unfertilized	1.5

The same varieties of corn, cotton, oats and peas have been used on these plats, the same manure for each crop and yet it appears that little or no increase has been obtained. This is plainly due to difference of soil. The fertilized acres occupy the level portion of the field, while the unfertilized ones extend back to the beginning of the declivity towards the bayou and are therefore better drained. It is believed that drainage is needed in the front acres to make them respond to the fertilizers applied and has led to an investigation of this subject by

TILE DRAINAGE

applied in the fall of 1890 to another portion of the farm which was described in the report for that year. The last season as a whole was unfavorable for testing the efficacy of the tiles. How-

ever the heavy rains of January and February established the following facts:

1. The tiles placed at 3 feet depth started and stopped earlier than those at greater depth.

2. Plat No. 12, with tiles 20 feet apart, was relieved of its excess of water very little if any earlier than plat 14 where tiles were double that distance. This may be canceled with age.

3. Where cotton blighted before tiling, none has been observed since the land was tiled.

4. Crops on tiled land suffered less during the prolonged drought than on land not tiled.

5. The tiled lands can be cultivated much quicker after heavy rains.

More important advantages will doubtless be realized with each year's experience with the tiles, but at present the above observations only, seem plainly obvious.

FRUIT.

Since the establishment of a separate Horticultural Department in connection with this Station, further additions to the orchard on the farm have been discontinued. The original orchard, however, remains and the following notes concerning it may be of interest pending the fruiting of the orchard on the Horticultural Grounds.

PLUMS.

Mariana—Ripened May 20. Fruit size of partridge egg; oblong, red, thin-skinned; fairly good; abundant bearer.

Wild Goose.—Ripe June 1. Good. Set a large crop, but owing to extreme dryness matured only a few.

Prunus Pissardi—Ripe May 15. Deep red; round, very small, skin thick; fruit fleshy and of fair flavor; a poor bearer.

De Caradeau—Ripe June 4. Large, round, yellow plum; poor flavor; profuse bearer; tree ornamental.

Botan—Ripe June 6. Described in former report. Fruit smaller than last year and crop very light.

PEACHES.

Elberta—Ripened June 6. Large, red cheeked peach; very fine; profuse bearer.

Early Rivers—Ripened June 10. Large and oval; a white, hairy peach; skin thin; very juicy and of delicious flavor; bore profuse crop.

Early Tillotson—Ripened June 8. Medium size, round and smooth; bright red; thin skin and of good flavor; a moderate bearer.

Thurber—Ripened July 4. A large, red cheeked peach, of fine flavor; a moderate bearer.

General Lee—Ripened July 9. Very large, white juicy peach; of Chinese cling type; a good bearer for this class. One individual weighed 8½ ounces.

Stonewall Jackson—Of same type, and very similar to above, but a poor bearer.

Pallas—Ripened July 15. A small, red peach, of fairly good flavor and a tremendous bearer.

Mountain Rose—Ripened July 9. Medium size, dark red and good; only a few obtained.

Lady Ingold—Ripened July 10. Yellow blotched, with dark red spots; meat yellow; moderate bearer.

Crawford's Late—Ripened July 6. A fair peach and a good bearer.

LIVE STOCK.

Of cattle the Station has Holsteins and Jerseys.

Sophia D., the oldest Holstein cow, continues her record of six gallons of milk per day, while her daughter Ada, now three years old, promises to equal her in the near future. Since the last report, the increase in the Holstein herd has been three, all bull calves. These have been disposed of to farmers in different parts of the State. There is now on the Station a Holstein bull, 2 cows, 1 heifer and a bull calf.

Princess of Beechwood, the Jersey cow, maintains her butter record given in a former report. All the increase of this cow have been disposed of.

POULTRY.

Confined in narrow quarters, with a late cold spring, the poultry have not done as well as was expected. Tho following is the record of eggs laid from February 6 to May 17—one hundred days:

EGG RECORD OF POULTRY FOR ONE HUNDRED DAYS FROM FEBRUARY 6, TO MAY 17.

Name of Breed.	Number of eggs.	Number of hens.	Average per hen per day.
White Crested Black Polish	27	1	.27
Brown Leghorns	96	2	.48
Light Brahma	26	1	.26
Silver Spangled Hamburg	64	1	.64
Black Minorca	100	2	.50
White Plymouth Rock	15	1	.15
White Minorca	40	1	.40
Partridge Cochin	54	2	.27
Buff Cochin	90	2	.45
Langshan	69	2	.34
White Wyandotte	29	1	.29
Laced Wyandotte	30	1	.30
Barred Plymouth Rocks	24	1	.24

INCUBATOR.

On March 11th one hundred eggs of the different breeds were placed in a "Monitor Incubator." Of these 59 per cent. of the fertile eggs were hatched and most of the chicks were raised. With practice fully 80 per cent. of the fertile eggs can be hatched and with a brooder may be easily raised, even in winter. This is here inserted to show what can be easily accomplished by the application of a little intelligence and labor. These small industries assist in making the wealth of the country and our farmer friends would do well by giving them more attention. Properly managed by means of incubators and brooders chickens might be placed in winter and early spring upon our markets when good broilers are worth $4 to $5 per dozen. The cost in this section of the country would be much less than in the North.