

THE EXPERIMENT STATION



AT RALEIGH, NORTH CAROLINA.

Crop Conditions—Rust in Small Grain. Experiment Station Report—Co-operative Dairying—Trucking in the South—Questions and Replies.

The Experiment Station Bulletin.

The standing offer is made to send the bulletins of the station to all in the state who really desire to receive them.

Crop Conditions During September, 1895

The following is extracted from the weekly weather crop bulletin of the state weather service for Oct. 7, 1895, and gives the crop conditions at the close of the season:

The month of September was favorable to about the fifteenth; then, however, a severe drought set in, with probably the most remarkable hot spell ever recorded in this State for September.

The drought continued during the first week of October, and farming operations are at a standstill except picking cotton, which has progressed rapidly, and gathering of corn.

The following table shows the departure in temperature and precipitation for each month during the season:

Table with 3 columns: Month, Departure in Temp., Departure in Precip. Rows for Jan through Sept.

Rust in Small Grain.

The rust disease of wheat, oats, barley and grasses generally, are caused by one or more of three species of microscopic fungi. The most common rust on grasses in this State is Puccinia graminis, generally called "Mildew" on grasses, and "Black Rust" on cereals.

Puccinia coronata, has for its alternate hosts the buck thorns, Rhamnus lanceolata, frangula and other species.

Knowing that to complete their cycle of growth these fungi require a host widely different from grasses and grains if we could extirpate all such host plants within a half mile or so of a grain or grass field we could effectually stop their further development.

As these spores are extremely small and light and are produced in almost incredible numbers the few alternate host plants which may survive even the most watchful care may supply acido spores enough to infect hundreds of acres of grass or grain.

Common and destructive as the rust fungi are in the United States, in Australia they are still more so and several conventions of scientific men and practical farmers have been held there to devise methods for repressing the pests but so far without much success.

- 1. Use dry or well drained land for small grains. 2. Plant only hard stemmed, hairy, early maturing varieties of wheat. 3. Plant those varieties which in your locality resist rust best—the so-called "Rust proof" wheat and oats. 4. Sow thinly to give plenty of sunlight and air to the plants. 5. Plow the land deeply as soon as the crop is harvested to destroy volunteer growth or bury the stubble and straw on the field.

Advanced Monthly Summary of Meteorological Reports for North Carolina, September, 1895

The North Carolina State Weather Service, issues the following advanced summary of the weather for September, 1895, as compared with corresponding month of previous years:

TEMPERATURE.—The mean temperature for the month was 74.3 degrees, which is 4.0 degrees above the normal. The highest monthly mean was 78.4 at Newbern; lowest monthly mean 62.6 at Linville.

PRECIPITATION.—Average for the month 1.25 inches, which is 3.40 inches below the normal. The greatest amount was at Hatteras; least amount 0.05 at Kitty Hawk.

WIND.—Prevailing direction, Southwest. The normal direction as deducted from many years observations is northeast. Average hourly velocity, 6.5 miles. Highest velocity, 48 miles an hour from the Northeast on the 30th at Kitty Hawk.

MISCELLANEOUS.—Thunderstorms occurred at various places on the 1st, 5th, 6th, 8th, 9th, 13th, 16th, 17th, 18th, 19th. Lunar halos on the 2d, Solar halos on 2d and 3d. Meteor observed at Settle on 23d. Frosts appeared in the western portion of the State on the 29th and 30th.

The North Carolina Agricultural Experiment Station During 1894

The above is a title of a work issued by the station. In connection with the volume, "North Carolina Weather During 1894," it includes all the finished work done by the station during 1894. The volume contains 605 pages, and a full table of contents and index make it easy to refer to any part of the subject matter.

The report includes all the bulletins issued during 1894, from Nos 94 to 110 inclusive. With the full index, any subject treated in these bulletins can readily be found. The general subjects embraced in addition are the operations of the Fertilizer Control Station and the State Weather Service, which are integral parts of the Experiment Station. Each of these is described in detail.

The above report is not sent to the

full mailing lists of the station, but is supplied to those in North Carolina who apply for them. To others on receipt of 25 cents.

Co-operative Dairying.

The station has been ready for some time to assist farmers in undertaking some co-operative dairying.

Up to date for over five months one farmer has furnished some milk to the Station Dairy at the Experiment Farm. As a part of the practice of a special student, this small milk supply was examined five days and daily tests made of the per cent of fat.

This milk was paid for by the Babcock test, or rather the fat was paid for, and the skimmed milk was returned to the producer. At 25 cents per pound for butter fat an average of \$1.27 per 100 pounds was realized for the milk.

As a bulletin (No. 113) has been issued by the North Carolina Agricultural Experiment Station, describing the methods deemed advisable for raising trucking crops especially in North Carolina.

Trucking in the South.

A bulletin (No. 113) has been issued by the North Carolina Agricultural Experiment Station, describing the methods deemed advisable for raising trucking crops especially in North Carolina. These crops are asparagus, beans, beets, early and late cabbages, cauliflower and lettuce, cucumbers, celery, egg plant, muskmelons and watermelons, onions, peas, Irish and sweet potatoes, radishes, spinach, tomatoes and turnips.

Questions and Replies.

The Station will be glad to extend its usefulness by answering as far as possible questions on agricultural topics sent by any one in North Carolina who may desire to ask for information. Address all questions to the North Carolina Agricultural Experiment Station, Raleigh, N. C. Replies will be written as early as possible by the member of the Station staff most competent to do so, and when, of general interest, they will also appear in these columns.

Onions for Market.

Which is the best onion to grow for market in this section?—J. S. D. V., Brinkland, Bladen Co., N. C.

[Answered by W. F. Massey, Horticulturist, N. C. Experiment Station.]

It depends upon how you propose to sell your onions. If you wish an onion to sell early as a green bunch onion, I would advise you to plant in October sets of the Early Pearl, or of the white potato onion.

The Harlequin Bug.

Can you give remedy for the cabbage beetle that is destroying my cabbages and turnips?—J. R. G., Durham, N. C.

The insect you complain of is the Fenopis or Harlequin Bug, now becoming the worst pest of the cabbage family every where throughout the South. This pest seems proof against all available poisons. Hand picking is the only practical remedy for this insect.

Beets for Stock Feed.

Will sugar beets be a good feed for hogs and milch cows?—H. W., Newton, N. C.

[Answered by F. E. Emery, Agriculturist, N. C. Experiment Station.] Yes, they are good but owing to expense in growing and harvesting they are not much used for that purpose.

There are varieties of stock beets called mangolds, or sometimes mangels which grow mostly above the ground which are comparatively free from soil holding roots. These are more easily grown and harvested though they do not contain so much sugar.

Variety of Trees for Peach Orchard.

"I wish to set a peach orchard so that I will have three or four trees bearing all the time from June to October. Will you please advise me as to what varieties to get?—J. T. H., Burlington, N. C.

[Answered by W. F. Massey, Horticulturist, N. C. Experiment Station.]

I would suggest the following varieties: Alexander, Mountain Rose, Early York, Mary's Choice, Reeve's Favorite, Old Mixon Free, Elberta, Crawford's Late, Beer's Smock, Wilkins' Heath, Salway, and Chairs' Choice.

Varieties of Trees For Apple Orchard.

Would like to have a variety, say two or three to ripen each month, from June to October. Could you offer any suggestions as to those best suited to this (Richmond) county?—J. Mc. P., Laurel Hill, N. C.

[Answered by W. F. Massey, Horticulturist, N. C. Experiment Station.]

I think that you will find the following a good one for your section: Early Apples—Red Astrakan, Carolina Red June, Yellow Transparent, Early Harvest, Fall Apples, Magnum, Bonum, Maryland Maiden's Blush, Fallawalder, Winter Apples—Winesap, Limber Twig, Golden Russet, Buckingham, Grimes' Golden, Junaluske, Nickajack, York Imperial.

Co-operative Creamery Association.

Too little attention has been given to this important form of enterprise in this State. It is to be hoped more interest will be taken in the near future and that the men who look into this industry will take hold of it as they do of corn or tobacco growing and make it a success.

Whoever wishes to investigate co-operative dairying can have the active help of this station. He should procure apparatus and buildings of several dealers, among whom the following are old and reliable manufacturers of dairy supplies:

The Vermont Farm Machine Co., Bellows Falls, Vermont; Hosely & Stoddard, Rutland, Vermont; The Creamery Mfg. Co., Chicago, Ills; The De Laval Separator Co., 74 Cortlandt St., New York City; Cornish, Curtis & Green, Ft. Atkinson, Wisconsin.

In general every local association should build its own house, if it can not more cheaply adapt some, convenient building until it gets cows and milk enough to do a good profitable business.

It is well within bounds to assure any body of creamery promoters in North Carolina that they can start a creamery on a scale large enough to handle all the milk which can be brought to the factory, for from \$1000.00 to \$1500.00.

The sooner some neat little plants can be established, the better provided they can be supplied with milk with which to operate. Canvas your neighborhood and get pledges to deliver a given amount of milk daily and make your business to correspond with what you can get pledged. Do not estimate beyond gallons delivered, and remember to caution your farmer neighbors not to count over 350 gallons of milk per cow per year, each gallon to weigh 8 1/2 pounds.

F. E. EMERY, Agriculturist, N. C. Experiment Station.

Germetuer is the Best.

Mr. C. P. McLain, Acworth, Ga., says: "Several years ago my wife suffered from attacks of bilious colic and indigestion. She used different medicines and tried several doctors, but all without permanent benefit. She used Royal Germetuer some years ago, and it has given her more relief than all else, and she recommends it to the afflicted." Write to The Atlanta Chemical Co., Atlanta, Ga., for 48 page book giving full information, free. New package, large bottles, 108 doses, \$1. For sale by O. M. Royster.

First Gold Mining on Record was in North Carolina.

Prof. David T. Day, the famous mineral expert and Chief of Division of Mining Statistics and Technology of the United States Geological Survey, in a letter to the New York World, published Sunday before last, speaks in the highest terms of the mineral exhibit of North Carolina at the Atlanta Exposition. According to Prof. Day the first mining on record in this country was that of the Indians in this State, who mined for mica. The first white mining is also credited to North Carolina, this being for gold.

Prevention better than cure. Tutt's Liver Pills will not only cure, but if taken in time will prevent Sick Headache, dyspepsia, biliousness, malaria, constipation, jaundice, torpid liver and kindred diseases. TUTT'S Liver PILLS ABSOLUTELY CURE.

The Only One To Stand the Test.

Rev. William Copp, whose father was a physician for over fifty years, in New Jersey, and who himself spent many years preparing for the practice of medicine, but subsequently entered the ministry of the M. E. Church, writes: "I am glad to testify that I have had analyzed all the sarsaparilla preparations known in the trade, but



AYER'S is the only one of them that I could recommend as a blood-purifier. I have given away hundreds of bottles of it, as I consider it the safest as well as the best to be had."

AYER'S THE ONLY WORLD'S FAIR Sarsaparilla When in doubt, ask for Ayer's Pills

BARS THE "COOCHEE-COOCHEE."

Georgia Legislature Down on Midway Dances.

An Atlanta special states that the Georgia Legislature, which convened there last week, passed a bill in the lower house forbidding the performance of "coochee choochee," or wiggle-waggle dances, after the fashion set on the Midway at the World's Fair. The bill was first introduced two years ago by a young member of the Legislature who had just returned from the big show. It was then the subject of ridicule and derision, but since the advent of the Turkish dancers on the Midway of the Atlanta Exposition, the lawmakers, professing to be shocked, agreed to put the measure through. Only seven voted against it, and it is thought that it will go through the Senate and receive the signature of the Governor.

You Can Believe

The testimonials published in behalf of Hood's Sarsaparilla. They are written by honest people, who have actually found in their own experience that Hood's Sarsaparilla purifies the blood, creates an appetite, strengthens the system and absolutely and permanently cures all diseases caused by impure or deficient blood.

Hood's Pills for the liver and bowels act promptly, easily and effectively.

Rights of Missionaries.

The New York Sun says: "The Mormon missionaries have as much right to propagate the religion of Mormonism in the State of North Carolina as the Presbyterian missionaries in China have to propagate the religion of Presbyterianism there. We should like to know the difference between the conduct of the Chinese mandarins and Vegetarians who drive out the Christian missionaries and that of the clergymen of North Carolina who have sent a written warning to the Mormon missionaries there to 'retire from our community, and that at once.' The Chinese have degraded the anti-missionary Viceroy, and chopped off the heads of a lot of the anti-missionary Vegetarians. What kind of punishment should be given by somebody to the Rev. M. D. Bynum, and the Rev. H. J. Jennett, of New Hill, Wake county, N. C.?"

The stories told in China against the Christian missionaries are even worse than those told in North Carolina against the Mormon missionaries.

Good advice: Never leave home on a journey without a bottle of Chamberlain's Colic, Cholera and Diarrhoea Remedy. For sale by O. M. Royster, Druggist. 45 ct.

None of His Business.

"It was very embarrassing for a moment," said the salesman. "She came up to the counter and said she wanted to see some materials for a fancy ball costume."

"She described what she wanted and I showed her several pieces. Finally she said: 'This one will do.' 'How much would you like?' I asked beginning to unroll the bolt. 'Oh, about a yard and a half,' says she. I thought I must be mistaken, so I asked her again and she said the same thing—a yard and a half. 'Then when she saw that I was surprised she flared up and said: 'I forgot to tell you that I have got six yards of the material at home.' 'But she needn't have told me. It was none of my business.'"