

COTTON DISEASES AND THEIR CONTROL

By G. W. FANT

Cotton diseases such as wilt, anthracnose, and rust, do more or less damage to the North Carolina crop annually. Growing cotton under such conditions makes it necessary to eliminate loss from all sources as much as possible. Taking steps to prevent the occurrence of these diseases might be looked upon as crop insurance, because there is very little to be done in the way of cure after they have appeared in the field in mid-season. The trouble mentioned below are prevalent at times, and the remedy mentioned is necessary to prevent their occurrence in the future.

Cotton Wilt

Several years ago, government inspectors developed cotton that was resistant to the wilt disease. This cotton has been known as the "wilt-resistant" cotton that was available in certain areas in the past. It is recommended because the yield of wilt-resistant cotton may often be reduced from twenty-five to seventy-five per cent.

Wilt has been found in most of the counties in the eastern half of the State. It is most destructive on light, sandy soils. The disease can be recognized by a wilting of the leaves or tips of cotton plants without any apparent reason. Diseased plants either die outright or remain stunted producing a small number of inferior bolls, or none at all. Dwarfing of the plants with a shortening of the distance between branches is also characteristic of the disease. If the infected plants are pulled up and split open, a blackening or browning of the interior will be found. It usually makes its appearance in a field in irregular patches which enlarge from year to year. It has been found that crop rotation will not eliminate wilt. Cotton has been kept off of infested land from seven to ten years and when cotton was planted again, it was found to be infested.

Dixie Triumph wilt-resistant cotton which is being grown on wilt-infested land in the State, stands up well in regard to yield when compared with our other varieties. If seed are obtained from a reliable breeder, the cotton will be found to be entirely resistant to this disease.

All cotton grown on light sandy soil, should be carefully observed for the presence of wilt. If it is found, resistant cotton should either be planted, or the wilt-infested land planted to some other crop. Last year, fields were found ranging in size from five to fifty acres in which a half or more of the crop was destroyed by this disease.

Some of our cotton fields each year suffer considerably from the trouble known as rust. Plants usually grow

readily to their normal size, but begin shedding leaves prematurely in the season. The trouble can be told from wilt because wilt-infested plants do not as a rule shed their leaves, and the blackening of the interior of the stem which is characteristic of wilt in the mid-season, is not noticeable in the case of rust. The early shedding of the leaves by plants troubled with rust causes the crop to lose several weeks of the growing season. The result is that the crop of bolls stops developing and few if any normal ones are produced.

This trouble is caused by soil conditions unfavorable for growth and is not an infectious disease such as wilt. The common causes for rust are lack of humus in the soil, lack of potash, and lack of drainage. Fields with naturally light or poor soils planted to cotton for several years in succession, without the proper attention to keeping up the supply of vegetable matter, are very susceptible to rust. Such soils are usually deficient in potash and if it is not supplied in sufficient amounts in the fertilizers rust will develop when the supply furnished is used up by the plant. If liberal applications of potash are not made prior to planting to those areas on which rust has appeared in the past, muriate of potash or kainit applied early as a side dressing will be found to be beneficial. If potash was not added in any other form this season the rate of application should be about 200 lbs. of kainit or 50 lbs. of muriate of potash per acre.

Nearly every grower of cotton is familiar with the pinkish mold that is to be found growing over locks at picking time, which prevents them from opening out. This disease is known as anthracnose and it is found on the bolls as early as August. These enlarge and by picking time the entire boll is entered by the pinkish growth. Since the disease occurs on the boll, it attacks the seed also, and in this manner it is carried over from year to year. By making a close laboratory examination of diseased seed, anthracnose spots are found on the small plant even before the seed has sprouted. This accounts for the poor stand that may often result in the spring.

Control of anthracnose is brought about by the selection of seed from fields having a minimum amount of the disease in order to prevent carrying it to the field on the seed in the spring. Keeping the cotton from areas selected for seed separate at picking and ginning from other cotton is advisable in order to prevent spreading of disease.

Crop rotation also will help to get rid of this trouble.

Considerable experimental work has been done with treating seeds

with acid for anthracnose, without very successful results. At the present time, experiments are under way at the North Carolina experiment station using heat as means of controlling anthracnose, without doing injury to the seed. Somewhat promising results are obtained, which may in the future prove of considerable value.

Fortunately, all the cotton diseases do not as a rule occur at one time; also the chances of getting a fair crop would be very slim. With the boll weevil to deal with, however, the grower cannot afford to suffer losses from these additional sources. It will be found to be profitable to pay close attention to cotton as it grows during the season so as to learn whether disease is prevalent or not and thereby profit by the experience.

FRANK NASH HAS THROWN IN HAT

His Entrance Makes It A Quartette In Race For Attorney General

Definite announcement made yesterday by Assistant Attorney General Frank Nash that he will seek the Democratic nomination for the post to be vacated by Attorney General James S. Manning brings the total definite and tentative number of candidates to four, and the campaign has not yet begun. Mr. Nash leaves no doubt that his hat is in the ring.

Other entrants thus far listed include Dennis C. Brummitt, of Granville, former Speaker of the House of Representatives; Henry Groves Connor, Jr., chairman of the Finance Committee of the House during the past session, and Charles Ross, of Harnett, who managed the campaign for R. N. Page for Governor in 1920. Friends have been urging N. A. Townsend of Harnett to get in the race.

Mr. Nash has been assistant Attorney General for several years, and has rendered valuable service in that capacity. The absence of Judge Manning from the city for a good deal of the time in the power company suit in Charlotte has left Mr. Nash with many of the burdens of the office to carry. He is a member of the well known Nash family of Orange county.

No other State office has yet elicited definite candidates, although four men are being talked of for the Lieutenant Governorship. W. W. Neal, of Marion; R. R. Reynolds, of Buncombe; Hugh Chatham, of Forsyth, and Walter Woodson, of Rowan, are all more or less tentative candidates, with Reynolds in the favored class. If Chatham runs, Neal will not run, and if Neal runs, Chatham will stay out.—Sunday's News and Observer.

TRAVELING BACKWARD Over the Trail of the Boll Weevil

Not tragedy but triumph, not devastation but diversification!

THE thing grey line that laid down its arms at Appomatox bred a generation that will not falter in the face of an insect. The champions of that mighty monarch, King Cotton, will never suffer his subjugation by a mere bug.

And the trail of the boll weevil through Dixieland is no path of disaster, over which the spectre of failure stalks with grim tread. But instead the sons of old Sam Houston in far away Texas, gathering numbers along the eastward course of battle, until the fray has entered our own fields, have fought the gamiest fight in all agricultural history—and saved the South!

It is more than twenty years since the boll weevil first menaced our chief crop. But today our world monopoly of cotton is all the more unquestionable because it has been maintained against odds. And our annual production is now worth fully five times its value of twenty years ago.

CO-OPERATION —Man's Highest Development All organized society is an example of co-operation. It is chiefly co-operation that distinguishes civilized man from the savage. It is co-operation that makes industry and commerce successful. It is co-operation that gives men power; that gives meaning to their purposes; that gives accomplishment to their hopes. Why not then—co-operation in agriculture? Why not, indeed—co-operation in marketing?

Says the Blue Book of Southern Progress just published, "It is quite certain that the boll weevil will be conquered." Meanwhile, we must keep up the warfare, by intensive culture, optimism—and diversification!

This institution regards the future with full confidence. We know the men who run the farms of the Dunn District. And with these men we consider it an honor to stand, to do battle with any bug that comes along!

The First National Bank of Dunn, North Carolina

ONE MORE CHANCE For Delinquent Tax Payers

The County Commissioners have authorized me to withdraw advertisement of sale of land for taxes to give the people one more chance to pay without the additional 20 per cent penalty.

All land which tax is not paid by June 4th will be immediately re-advertised.

This is your last chance. I must settle, and in order to settle I must either collect your tax or sell your property, I have no other choice.

THIS MAY 17, 1923

J. W. McArtan, Sheriff

AGED MOTHER AND HER THREE DAUGHTERS DIE

Mountain Lake Park, Md., May 24. —Fate today intervened in summer vacationing plans of Mrs. Mary O'Connor, aged 84, and her three grown daughters, who arrived here this morning and as a result the four are dead. Burning leaves exploded accumulated gas in the cottage occupied by Mrs. O'Connor. The daughters rushed into the blazing cottage to rescue their mother. They never came out.

CONVICT CAMP SUPERINTENDENT SCORED BY JURY

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for several days, and possibly a week. Our inspection of the camp disclosed the fact that the camp as a whole was very dirty and insanitary. The kitchen was filled with flies. The windows in some were unobstructed. We found the cages in which the prisoners are kept to be in fairly good condition. We recommend, however, that the county commissioners immediately cause to be erected a stockade in which the prisoners may be confined on Sundays and other days when they are not at work. This should be done in order that the prisoners may have some freedom and liberty and an opportunity for rest and recreation. We recommend that if county health officer and the county home

demonstrator visit the camp at least two times each month and inspect the sanitary condition of said camp. We recommend that if any prisoners are whipped, that the punishment be given only in the presence of the county health officer. We understand that in the past certain prisoners have been whipped in the absence of said officer. It was reported to our committee by some of the convicts that the cook spent a great deal of his time in waiting on the family of the superintendent and did not have sufficient time to properly cook food for the convicts. Our body does not think that the present superintendent is the proper man for the position, and we recommend that the county com-

missioners immediately make a full and complete examination of the convict camp, and the manner in which the prisoners are treated and fed, and that if the conditions are found to be as reported by us, that the present superintendent be discharged. We wish to commend your Honor for the manner in which you have conducted and held the courts of our county. While our docket is still congested, yet many cases have been tried and removed from the docket and we feel that this is due to your Honor. We also wish to thank the solicitor for his co-operation with our body, and we wish you both Godspeed. Respectfully submitted, B. P. INGRAM, Foreman of the Grand Jury.