

# When the Boll Weevil Comes.

(Bruce H. Strubling, in December Clemson Agricultural Journal.)

Recent investigations of the most badly infested regions in the States of Louisiana, Mississippi, Alabama and Georgia, by the South Carolina Boll Weevil Commission, confirms the oft-repeated theory that the boll weevil will eventually reach the cotton fields of this State; but in addition, discloses the startling fact that its coming will be during the coming year, if it has not already arrived. This pest entered the State of Texas from Mexico about 25 years ago, and since that time it has spread over eight States in the cotton belt, and it has traveled eastward at the rate of about 50 miles each year. Unfavorable and favorable climatic conditions have, respectively, impeded and accelerated the weevil's migration each year, but it has continued its eastward journey undaunted. The southern and eastern parts of Georgia were infested last year, and an infested area in South Carolina was reported, but the report has not been officially recognized as being authentic. The commission mentioned above states "that the infestation of the State of South Carolina by the boll weevil within a year, and general infestation of the State probably in three years, is a certainty. No means have yet been discovered that give promise to check or prevent the advance of this insect pest. When it arrives it must be regarded as a permanent factor in our agriculture to be dealt with accordingly." And furthermore, "that wherever the boll weevil has become established, the result has been agricultural and economic failure and demoralization. That it will be impossible to depend entirely, as heretofore, on the cotton crop, although some cotton of an early maturing variety may be successfully grown on soils especially adapted to quick growth under frequent and intensive cultivation. Given ample labor and fertilizers and favorable climatic conditions, a profitable crop on reduced acreage may be made. With unfavorable seasons, the boll weevil may destroy practically the entire crop." Again, "those who have prepared for the weevil's coming have suffered little of inconveniences or financial embarrassment. For the man in debt, the improvident and the unbeliever, the boll weevil has spelled a disaster almost inconceivable in its completeness."

In view of these statements made by the most eminent agricultural experts in South Carolina, and being based upon personal first-hand knowledge of conditions existing in, and facts relating to, the already infested regions of our sister States before and after the advent of the boll weevil, does it not behoove the farmers of this State to seriously consider how they may best be prepared for the practically inevitable coming of this pest? Are they disposed to be among the number of those who, having been repeatedly warned of their impending danger, will sit idly by and meet financial destruction and agricultural disaster without even making an honest effort to avert such a catastrophe? Or will they thoroughly investigate the problem, make the necessary changes, pursue the most up-to-date methods of "preparedness," and let the advent of the boll weevil be but an agency to cause them to rise to a higher level of agricultural efficiency and financial independence? With the prevailing price of cotton and its products making the farmer happy this fall, and the bright prospects of the future enticing him to produce a bumper crop in 1917, the farmers of this State are facing one of the most critical periods they have ever confronted. With a large crop of cotton produced under the financial arrangements prevalent throughout the State to-day, completely or partially destroyed by the boll weevil within the next two years, business would be paralyzed to an extent heretofore unbelievable. And especially would the average tenant suffer under such conditions. Upon the arrival of the boll weevil, the credit merchant would refuse to advance to

the tenant farmer, because he would know that he could not give his crop the necessary treatment to insure its successful production. On the other hand, the land owner who had not been accustomed to extending credit to his tenants heretofore nor supervising their labor, would certainly not risk any money to them when he would be so confident that their cotton crops would be a failure. Thus the tenant would be "caught between these upper and nether millstones" without food and supplies or means of procuring them; and he has no recourse—he must either starve or leave the country. Naturally he will do the latter, and the community would lose a unit essential to all wealth—a productive laborer. 'Tis true that far-sighted farmers have taken the necessary precautions, and have produced profitable crops of cotton in the most badly infested sections. These are the exceptions, however, and not the rule; but they are admirable examples of the fact that when a farmer is properly prepared, the boll weevil merely serves to stimulate the use of better methods of farming. And the depopulated, poverty-stricken, God-forsaken areas, found in such large numbers are of such large extent in our sister cotton-growing States, caused by the failure of the inhabitants of these areas to take the necessary precautions to alleviate the destruction of the boll weevil; should preach a sermon on "Agricultural Preparedness" which would convince the most ignorant skeptic in South Carolina to-day, that it is absolutely essential to his future welfare that he make immediate and adequate provision for the inevitable coming of the boll weevil into the cotton fields of this State.

Since it is certain beyond a doubt that the farmers of the State must contend with the boll weevil, and since it has wrought such havoc wherever it has appeared, the question logically arises, "What should be done?"

In "The Boll Weevil Problem," by B. L. Moss, this statement is made, "It is the sheerest folly to advocate the elimination of cotton as the great cash crop of the South. More livestock, more feed and more soil improving crops are urgently needed in many parts of the cotton States, but it is idle to argue that livestock production should generally supplant the production of cotton. Nature has given the South a practical monopoly on this crop, and the demand is so rapidly broadening that before many years have passed a 20,000,000-bale crop will be easily absorbed." Then the method of producing cotton under boll weevil conditions is of primary importance to the farmer who is now growing cotton. The first essential in such production is the unshakable belief that it can be done, and the remaining steps are comparatively easy when this State of mind is reached. It is true that the Southern States are strewn with farmers who have failed on account of the boll weevil, but in nearly every section some one has grown cotton successfully; and these few men have inspired confidence in their doubting neighbor, and caused the community to return to normal prosperity after a time. Closely allied with confidence is credit. Without confidence there is no credit, and without credit there would be no crops produced in a large number of cases. No surer method of bringing on a panic, demoralization of business, and loss of crops could be devised than the complete withdrawal of credit when the weevil appears. The hearty co-operation of the farmers, merchants and bankers should be affected so that each would mutually prevent the other from suffering so seriously as he might. Credit to a limited amount should still be extended, but with the express stipulations that the proper methods of crop production will be practiced. If the credit is reduced gradually, by the time the boll weevil affects us seriously the merchants will be safe even then in extending some credit. It is very probable that two more good crops may be produced in this State under the existing methods, but if the farmer will begin to economize now, by the time the weevil does become destructive, he will not be affected so greatly. A period of readjustment must be undergone, and the better the provision one has made, the more independent he will be; and the more patience and ease with which this readjustment can be borne, the happier and more successful one will become. Where the necessary provisions have been made to prevent the usual disaster upon the initial appearance of the boll weevil, where farmers and merchants have united to combat a common pest, and where the proper methods have been used to raise cotton after the advent of

the weevil, agriculture seems to be on a sounder basis to-day than before the coming of the boll weevil.

Intelligent farm management is the whole secret of producing profitable crops of cotton after the arrival of the boll weevil. The study of the life history of this insect reveals the fact that the adults do not mature in large enough numbers to injure the cotton squares and bolls until about the latter part of July or the first of August as a rule. This is the key to the whole situation, for the fruit that is on the plant before the first of August is practically safe from the boll weevil. When it begins to attack the fruit, it will puncture the tender squares and blossoms and destroys them, but the covering of the bolls soon grow too thick for it to puncture. At first the farmer laughs at the idea of producing a crop of cotton by the first of August. Impossible! This state of mind will never do. It can and must be done. Of course there will be abnormal years as regards the rainfall, droughts, etc., but these years must be reckoned with anyway, and if the farmer cannot become reconciled to an occasional bad season, he can never make a success at farming. An early maturing variety of cotton which has already become adapted to local conditions is the first requisite. Short staple varieties of the small boll prolific type have proven the most popular in the Southern part of the cotton belt, because of its extreme earliness and its prolificacy as well. The large boll varieties are not as prolific or early, but are much better than long staple varieties. In any case, careful seed selection will aid in obtaining the desired results—an early maturing cotton which sets its fruit early, quickly and prolifically. The second point to be stressed is planting the cotton on a properly prepared soil "especially adapted to quick growth under frequent and intensive cultivation." Securing and maintaining such a soil is a long step toward early maturity of the crop, but it will necessitate radical changes in the present farming program of a great many farmers in this State. Generally speaking, the type of soil which was suited to cotton growing before the coming of the weevil is the best type for making cotton under weevil conditions, viz., a soil having good drainage, filled with humus, and having its plant food constituents in sufficient quantity and in the right proportions. Whether he is growing cotton or not, every farmer should have his soil properly drained both underground and on the surface. Humus can be added in the form of manure, but to supplement this the growing of cover crops is advised. When these crops are turned under humus is added and the physical condition of the soil is bettered also. Plant food may be added in the form of commercial fertilizers as heretofore and to about the same amounts, but it is very beneficial to grow legumes on the land and add nitrogen in this way. Organic matter is valuable for the plant food it may contain, but its value in breaking down and liberating the plant food already in the soil equals, or is greater, than its direct fertilizing value. Humus increases the water-holding capacity of a soil, and at the same time it makes it more porous and easily dried, thereby enabling the crop to be plowed much more quickly after a rain. This helps to "force" the cotton, in that a greater amount of the moisture may thus be held in the soil for the plant to use. Farmers in Louisiana and Mississippi have found that a crop of cow peas on the land the year before cotton is to be planted on it hastened its maturity to a noticeable degree. For the above reasons, it should become evident that a practical system of crop-rotation is necessary for the securing and maintaining of the comprehensively defined soil, mentioned above as one of the requisites for the early maturity of the cotton crop.

The time of planting the cotton crop is the next thing to be considered, but this must be decided by each farmer to suit his own individual surroundings. The crop should be planted just as soon as it is safe to do so in order that it may escape being damaged by frost. This date varies so widely that it becomes a local matter and is best understood by the farmers in each community. The boll weevil remains in his winter quarters until warm weather comes in the spring, and if he comes out too early he is injured by cold as well as the young cotton plant, if it comes up too soon. The cotton plant and the young weevil run a race from an equal start usually, and the latter has a pretty definite length of time to live before it becomes destructive; while the cotton plant may be made to accelerate its speed and get fruited before the boll weevil can become strong enough to cut its yield much. Reduction of the cotton acreage is ardently advocated, and this advice is well-founded, for the simple fact that the South as a whole is not self-supporting in the

production of food and feedstuffs; and this reduction of the cotton acreage should have been done long ago. There are thousands of farmers in the State who have already reduced their acreages and the producing surplus amounts of hay, grain and home supplies; and it is difficult to see how such a reduction should be of any real benefit to them. They are the very farmers who will be the least damaged by the boll weevil. The cotton crop should be worked frequently to keep it free from grass and weeds, and to conserve the soil moisture. Shallow cultivations should be used and repeated every week or ten days throughout the growing season. If applications of fertilizers will be beneficial they may be used, but they should be in a quickly available form. The crop should be picked as early as possible in the fall in order that the stalks may be destroyed, for the weevil hibernates in the old stalks and the dead squares and trash. If sufficient horse-power is handy, the stalks should be cut down and turned under to a depth of three or four inches. This destroys the boll weevil's hiding place as well as adds organic matter to the soil. If all the trash cannot be turned under in this way, it is best to rake the stalks up and burn them—clean up the farm to destroy all places where the weevil might live over the winter. The earlier this sanitary precaution is taken the fewer the percentage of weevils surviving the winter will be, and if this work cannot be done early, do it late. Clean up! Even where the best precautions are taken some weevils will still survive, and they appear in the buds of the young cotton the next year before the squares are formed. A very effective mode of controlling these is to "pick and destroy all these over-wintered weevils and later to pick and destroy all infested squares" that can be found. Several of the statements made in regard to the methods of combating the boll weevil are verified by testimonials and results found in Mr. Moss's book about the weevil mentioned above. In attempting to present a plan whereby cotton growing may be made successful under weevil conditions, only the fundamental principles have been suggested, for each farmer will have to solve his own problem, for he only knows all the factors controlling the growth of cotton on his farm. But after all, as some one has aptly said, "Farming is one-eighth knowledge, three-eighths doing, and one-half business." This is especially applicable to farming where the boll weevil is to be contended with. The knowledge required is that an early maturing variety of cotton planted as early as frost will permit in the spring, on well prepared soil suited to the rapid growth and early maturity of cotton under frequent cultivation, and the early picking of the crop that the stalks and all protected places for the weevil to live through the winter be destroyed as early in the fall as possible, are necessary for the profitable growth of cotton in spite of the boll weevil. Practically applying this knowledge will keep the farmer busy doing something which will help him, and in "making both ends meet" all his business ability will often be taxed to the utmost. If the farmer will only determine to grow cotton his ultimate success is certain.

In following the outline recommended above for the successful production of cotton when the boll weevil comes, many other valuable things may be accomplished besides raising cotton. To fit the soil for the growing of cotton, crop-rotation is very beneficial, and this allows for

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The success of Lydia E. Pinkham's Vegetable Compound, made from roots and herbs, is unparalleled. It may be used with perfect confidence by women who suffer from displacements, inflammation, ulceration, irregularities, periodic pains, backache, bearing-down feeling, flatulency, indigestion, dizziness, and nervous prostration. Lydia E. Pinkham's Vegetable Compound is the standard remedy for female ills.

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Mrs. E. R. Gilbert, of Millbro, Va., says that Dr. Caldwell's Syrup Pepsin is a splendid laxative for children because they like its pleasant taste, and it acts so easily and naturally, without griping or strain, and she finds it equally effective for the rest of the family.

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substitutes be sure you get Dr. Caldwell's Syrup Pepsin. See that a facsimile of Dr. Caldwell's signature and his portrait appear on the yellow carton in which the bottle is packed. A trial bottle, free of charge, can be obtained by writing to Dr. W. B. Caldwell, 455 Washington street, Monticello, Illinois.

the growing of other crops besides cotton. And if the acreage is reduced, the same amount of cotton can be grown earlier, given closer attention and better care; and the land not planted in cotton offers a good avenue for diversified farming which has many advantages especially to the advantageously located.

There is a farmer in the Piedmont belt that has so managed his farm that for the past 20 years, with two exceptions possibly, he has raised and marketed enough produce and livestock on his farm to pay all his running expenses and give his family all modern necessities, and have his cotton crop, which averaged 25 bales per year, as his net profit for each year's work. This farmer is practically prepared for the coming of the weevil and will only have to think of controlling it. If the weevil should destroy his entire cotton crop his other farm products would enable him to pay all his debts and be independent. Where a farmer is near a city or if he has a good market for his products, it may be advisable for him to raise stock, run a dairy, or raise vegetables; but in any case it will pay him to raise some other substitute crops or have something else to depend upon besides the cotton crop. The farmer should be careful in taking up any of these side lines and not start on too large a scale. In most instances, however, all other crops should be made subordinate to cotton, for it is the most valuable crop a farmer can produce. And if the farmers of this State will prepare themselves and will raise cotton in spite of the boll weevil, by diversifying their farming and make the best of the situation instead of spreading their tales of woe to the rest of the world; instead of a curse, the coming of the boll weevil into South Carolina will prove a blessing in disguise.

**Don't Let Your Cough Hang On.**

A cough that racks and weakens is dangerous; it undermines your health and thrives on neglect. Relieve it at once with Dr. King's New Discovery. This soothing balsam remedy heals the throat, loosens the phlegm; its antiseptic properties kill the germ and the cold is quickly broken up. Children and grown-ups alike find Dr. King's New Discovery pleasant to take as well as effective. Have a bottle handy in your medicine chest for grip, croup and all bronchial affections. At druggists, 50c.—Adv. 3.

**Prohibition Still Gaining.**

Chicago, April 4.—Two State capitals—Springfield, Ill., and Madison, Wis.—to-day are celebrating the driving out of the saloon in elections yesterday. Duluth, Minn., also was added to the prohibition column.

In Illinois it was estimated that in the ten townships which voted dry the knell was rung for 250 saloons. Two townships turned down prohibition. Nineteen townships remained in the column where they have been. Women materially aided in the dry victory at Springfield. The men voted wet by 1,877, while the women voted dry by 2,335, giving a dry majority of 458.

Madison voted 4,556 dry and 4,155 wet. Duluth gave a dry majority of 963, as against a dry majority of 378 last year.

Superior, second largest city in Wisconsin, returned to the "wet" column after a year of prohibition. In the smaller cities 42 voted "dry" and 24 "wet."

**Asbury Park Hotels Burn.**

Asbury Park, N. J., April 5.—Fire that started in the natatorium here to-night spread rapidly to nearby buildings and an entire block along the beach front was in flames within thirty minutes. A half dozen hotels were burned and fire departments from surrounding towns were summoned.

## RUSSIAN ENVOY IS WOUNDED. Mystery Veils Shooting in Baltimore Country Club House.

Baltimore, April 4.—Michael Berzatosky, commercial attache of the Russian embassy in Washington, who arrived from Petrograd eight days ago with a document for the embassy from the Russian minister of finance, was shot in the Baltimore Country Club early to-day. He now is in a hospital here.

M. Berzatosky arrived here Saturday from Washington, after he delivered his document to the Russian embassy. It is understood that he was to remain in this country as commercial attache.

E. G. Thelin, a prominent club man, stood sponsor for him at the Baltimore Country Club, and the count had been stopping there since Sunday.

He was found unconscious on the floor of the club at 2 o'clock a. m. and Mr. Thelin had him taken to the hospital.

Friends of M. Berzatosky said he was "toying with a pistol when it exploded." They further announced that he was shot in the breast.

At the hospital, however, it was stated that the bullet lodged in the stomach. One of his physicians said further that the shooting was not an accident.

The Russian embassy in Washington was notified.

## CASTORIA

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Forty Plead Fraud Guilt.

Indianapolis, April 4.—Forty Republican politicians of Evansville, including the chairman and secretary of the county committee, pleaded guilty in Federal Court to-day to a conspiracy to debauch the fall election in Evansville.

In a statement outlining the conspiracy Frank DeLacey, special assistant to the United States Attorney General, said Federal authorities had been able to trace contributions of more than \$25,000, much of which was used for corrupt purposes.

**Finland, Armed, Reaches Port.**

New York, April 4.—The American Line steamer Finland has arrived at a British port, according to cable advices received here to-day. The Finland left an Atlantic port March 23, heavily armed. She carried no passengers, but had a heavy cargo.

## WHAT IS LAX-FOS

LAX-FOS IS AN IMPROVED CASCARA A DIGESTIVE LAXATIVE CATHARTIC AND LIVER TONIC

LAX-FOS is not a Secret or Patent Medicine but is composed of the following old-fashioned roots and herbs:

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In LAX-FOS the CASCARA is improved by the addition of these digestive ingredients making it better than ordinary CASCARA, and thus the combination acts not only as a stimulating laxative and cathartic but also as a digestive and liver tonic. Syrup laxatives are weak, but LAX-FOS combines strength with palatable, aromatic taste and does not gripe or disturb the stomach. One bottle will prove LAX-FOS is invaluable for Constipation, Indigestion or Torpid Liver.

## Recommended by Doctor Cothram

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