

PROGRESSIVE FARMER

THE INDUSTRIAL AND EDUCATIONAL INTERESTS OF OUR PEOPLE PARAMOUNT TO ALL OTHER CONSIDERATIONS OF STATE POLICY.

RALEIGH, N. C., SEPTEMBER 19, 1899.

No. 32

Vol. 14.

PUBLISH WEEKLY

The date on your paper tells you when your subscription expires. Receipts for money on subscription will be given in change of date on label. If not properly changed in two weeks, discontinue.

DISCONTINUANCES.—If a subscriber wishes to discontinue his subscription, notice to that effect should be sent. Otherwise it is assumed that a continuance of the subscription is desired, and all arrears must be paid when paper is ordered stopped.

Money at our risk if sent by registered letter or money order. Please don't send stamps. We agree to give both old and new addresses in changing change of postoffice.

Scale of Advertising Rates: ten cents per agate line. Liberal discounts for time and space.

This item is marked to remind you that you should carefully examine this sample copy and send us \$1 for a year's subscription. Will also send paper on trial 6 months for 50 cents, or 3 months for 25 cents. Or we will send you paper free for one year if you will send us \$5 in new subscriptions, or free six months for \$3 in new subscriptions, at these rates.

We want intelligent correspondents in every county in the State. We want FACTS of value, intelligently accomplished of value, experiences of value, plainly and briefly told. One solid, demonstrated fact, is worth a thousand theories.

THE PROGRESSIVE FARMER is the Official Organ of the North Carolina Farmers' State Alliance.

FARM AFFAIRS.

CRIMSON CLOVER—(ANNUAL OR GERMAN CLOVER)

The Agriculturist of the Experiment Station Writes Regarding its Nature and Best Methods of Cultivation.

Correspondence of The Progressive Farmer.

A reader of The Progressive Farmer asks for an article on growing crimson clover.

So I shall, even though a little late note a few of the advantages of this most excellent crop, and give my ideas as to when, and how, it should be planted, harvested, etc., in the Atlantic States.

It should be planted in the Middle and Southern States in August and September. Some advise sowing the seed in between the cotton and corn rows, during these months, and not covering the seed, claiming that the rain will cover sufficiently. Now this may do in some sections, but cannot be relied on in all cases.

I can well see that such would be sufficient in a very light sandy soil, but even then the young shallow rooted plant would be liable to be burned out by our fall drouths.

Now if it is desired to sow the seed in a crop already on the ground, then I would advise running a cultivator through the crop, and follow with the seed; and then run a fine tooth harrow to cover with. Anything to cover lightly, as the seed will not germinate if planted too deep.

Now if the crop is to be put on land occupied by no other crop, then I would say break up the land deep with a two-horse plow, harrow thoroughly and run a drag or roller after the harrow to be sure the clods are pulverized and the land is leveled.

Then sow the clover seed and cover with a Thomas smoothing harrow. The object in running the harrow after the seed is sown is to cover them lightly, and to keep the land from baking, as the harrow leaves a light layer of loose soil on the surface which acts as a mulch.

Now as to fertilizers to be used, and when to apply. We all know that crimson clover is a rich nitrogen feeder. Hence I would advise only the use of solid phosphate and kainit. Let the farmers supply plenty of two elements, and the crop will get up the balance.

In other words, I consider crimson clover a renovator as well as a fine feed stuff.

Put on from 450 pounds to 800 pounds of the elements mixed in the proportion of one part of kainit to two of acid phosphate.

I would apply broadcast just ahead of the first harrowing in the preparation of the soil. This crop will prevent leaching during the winter, and can be lightly grazed by calves and colts in the early spring.

If it is desired to save the crop for hay, cut just about the time it is in full bloom, or when the first blooms turn brown. Just at this stage the crop will contain more digestible matter than at any other. Later on it has too much woody fibre. If seed are to be saved, the crop should stand a few days longer. In either case it comes off early enough to allow most any of our spring crops to be planted on the land, such as cotton, corn, potatoes, tobacco, melons, etc.

Enough plant food will be left in the

soil in the way of roots and stubble to compensate for all the labor and fertilizers applied the previous fall, to say nothing of the protection of the soil from leaching and being washed away by winter rains. Hence the clover crop harvested as hay is just so much clear gain. Not only will the soil be benefited in having a large amount of available nitrogen, potash and phosphorus left for the succeeding crop, but the organic matter is very beneficial. Doing as much good in that way as several loads of barnyard manure.

There is economy in letting nature supply our nitrogen, and if we can get off with buying only the two least expensive elements, we may consider ourselves fortunate. The quotations for available potash and phosphoric acid this year are about 5 cents and 4 cents per pound, respectively.

From this it can readily be seen that fertilizers can be supplied to any of our market crops more economically in this than in any other way.

Raleigh, N. C.

IS THE COTTON CROP SHORT?

The cotton crop is evidently short. Elsewhere in this issue of The Progressive Farmer we give the September report showing the average September condition throughout the country to be the lowest in 25 years. In North Carolina the crop is short and opening early, due to the dry, hot weather. The Arkansas Commissioner of Agriculture says the crop in that State is about 15 per cent. short; the Alabama Commissioner says the crop there is 27 per cent. less than last year; the Texas Commissioner says the Texas crop will be 700,000 bales less, while Mr. Stevens, Commissioner of Agriculture of Georgia, predicts a general crop of ten million bales against the 11,200,000 bale crop of 1898-99.

THE CARE OF CORN STALKS.

Correspondence of The Progressive Farmer.

One lamentable waste which is going on under the very eyes of the farmer, and one for which there is no shadow of excuse, is that now at hand in the corn field.

In the Western and Middle States where hundreds of acres of corn stalks have been allowed to stand and go back into the earth or else be burned in order to get rid of them, this waste has been very great. The actual value of the stalk as food is nearly or quite as great as that of the grain itself.

In the great corn growing belt it may not be possible to utilize fully this part of the plant, but for the farmer whose corn fields do not acquire so extended an area there is not the slightest excuse for treating this valuable product as it is treated on the average farm.

Corn should be cut before it is fully ripe. This secures the juices in the plant at the same time doing no injury to the grain, which will mature after it is in the shock.

Large shocks of corn are preferable to small ones, since the surface exposed to the weather is less. Husking should be done as early in the season as possible and the fodder secured at once instead of allowing it to stand in the field until mid winter or even later as is sometimes the case. There is very little food value left after the bundles have been soaked through and through by rain and completely weather beaten. Fallen shocks should be righted after a wind storm and not allowed to remain lying on the ground.

Care is necessary in stacking the bundles of corn stalks or they will spoil. I have seen stacks which rotted badly by reason of being improperly put up. The center must be kept full and not allowed to be on a level with the outside of the stack or it will settle too much; then when heavy rains come they beat in and following the course of the bundles wet it through.

Where one depends on stacking corn fodder, it should be put in small stacks, these being preferable to large ones. These can be drawn inside the barn to better advantage as required without leaving any portion exposed to the weather.

Load for load good, bright, well cured corn fodder is equal to hay for feeding stock.

What is wasted on the average farm often equals the amount actually consumed.

Hoping The Progressive Farmer readers will find these hints of value.

W. C. ROCKWOOD.

CONDITION OF CROPS.

The latest report of the Statistician of the Department of Agriculture shows the following averages of condition of crops named:

Corn, 82.2; wheat, 70.9; oats, 87.2; rye, 82.0; buckwheat, 75.2; potatoes, 86.3; barley, 86.7.

There was a decline in the average condition of corn during August amounting to 4.7 points, but the condition on September 1st was still 1.1 points higher than on September 1st, 1898; 5.9 points higher than at the corresponding date in 1897, and 2.9 points above the mean of the September averages for the last 10 years. There was a decline during August of 3 points in Ohio and Missouri, 2 in Illinois, 9 in Kansas and 14 in Nebraska, and the averages in the Southern States are nearly all somewhat lower than on August 1st. On the other hand, there was a slight appreciable gain represented by about 1 point in Kentucky, Indiana and Iowa.

The average condition of potatoes was 86.3. This shows a decline of 6.7 points during August, but is still 8.6 points higher than on September 1st, 1898; 19.6 points higher than at the corresponding date in 1897, and 9.3 points above the mean of the September averages for the last 10 years.

Of the principal tobacco States, Kentucky, Pennsylvania, Virginia, North Carolina, Ohio, Indiana, Wisconsin, Massachusetts and Connecticut report an improvement in condition during August, while New York, Tennessee and Missouri report a decline.

Of the 13 principal sweet potato States, 5 show an advance during August and 8 a decline.

There is a continued decline in the condition of apples from almost every important apple growing State.

As for cotton, the report shows the average condition on September 1st, to have been 68.5, as compared with 84.0 last month; 79.8 on September 1st, 1898; 78.3 at the corresponding date in 1897, and 78.4 the mean of the September averages for the last ten years. The condition on the first of the present month was, with the exception of the year 1896, the lowest September condition in 25 years.

There was a general impairment of condition during August amounting to 6 points in Alabama, 8 in Mississippi and Tennessee, 10 in North Carolina and Georgia; 12 in South Carolina and Louisiana; 16 in Florida, 20 in Oklahoma, 24 in Arkansas, 28 in Texas and 40 in Indian Territory. The serious decline in condition is the result in the main of long continued drought. Where local rains have fallen they have generally been so heavy as to still further aggravate the situation.

The averages of the different States on September 1st were as follows:

Virginia, 87; North Carolina, 73; South Carolina, 66; Georgia, 69; Florida, 77; Alabama, 76; Mississippi, 78; Louisiana, 74; Texas, 61; Arkansas, 62; Tennessee, 76; Missouri, 85; Oklahoma, 60; Indian Territory, 53.

IN NORTH CAROLINA

The following is the September report giving the average condition of crops in this State:

Cotton, present condition, 75 per cent.; damage since last report, 10 per cent.; tobacco, present condition, 87 per cent.; corn, present condition, 85 per cent.; field peas, present condition, 83 per cent.; potatoes (sweet) present condition, 86 per cent.; (late Irish) present condition, 73 per cent.; peanuts, present condition, 85 per cent.; sorghum, present condition, 85 per cent.; turnips, present condition, 73 per cent.; cabbage, (late), present condition, 87 per cent.; apples, present condition, 45 per cent.

The condition of cotton averages 75 per cent., which shows ten per cent. damage since the last report and twenty five per cent. damage since the issuance of the July report.

Tobacco has sustained the greatest damage. The condition of tobacco was 101 when the August report was issued. Now it is 87. The crop promised to be the largest ever known, and even yet the yield will be unusually large.

Corn has deteriorated since the August report 1 per cent.; field peas 3 per cent.; peanuts 2 per cent.; turnips 9 per cent.; cabbage 6 per cent. and apples 4 per cent.

Would it not be well for you to bestow on your own family a little of the courtesy which you are so prompt to show to strangers?

THE ARMY WORM.

The ravages of the army worm in this State at the present time make anything regarding it and the best means of combating it of special interest to most farmers.

Capt. A. B. Mulligan, of Spartanburg, S. C., recently sent a specimen of the army worm (*leucania unipuncta*) to the Department of Agriculture at Washington and received the following circular descriptive of the life and habits of the insect and remedies and preventive measures:

There is never any demand upon this office for remedies for the army worm until it is almost too late to do any good. There are certain old time measures which may be adopted to protect certain fields from advancing armies, like the plowing of a furrow with its perpendicular side towards the field to be protected and the subsequent dragging of a log through the furrow to keep the earth friable and kill the worms which have accumulated in the ditch, and another is the sprinkling of a strip of pasture or field crop in advance of an army with Paris green or London purple in solution. In fields which the caterpillars have already entered there is little which can be done for their destruction which does not also involve the destruction of the crop. The fields may be sprinkled by means of a broadcast sprayer with an arsenical solution, or they may be rolled with a heavy roller if the ground is level, or a flock of sheep may be sent in, which will result in crushing most of the worms by trampling.

In the great majority of cases, however, these latter measures are unnecessary, for the reason that nature herself almost always takes a hand in the reduction of the excessive numbers of the insects, either by unfavorable weather conditions, or by the excessive multiplication of natural enemies and parasites, so that it is extremely rare that we hear of one army worm outbreak immediately following another.

In general, therefore, it may be said that, as soon as the worms are discovered to be exceptionally numerous in a given field (and, as a matter of fact, they are at first almost invariably restricted to the immediate neighborhood of some definitely limited, permanent breeding place), all energies should be devoted to the protection of the surrounding crops by the means mentioned above, and the destruction of the worms in the fields first attacked may be safely left to the last.

There are many localities in which the army worm is never seen, or rather, is never known to be injurious, and these localities owe their exemption undoubtedly to the unconscious use of preventive measures. Clean cultivation, rotation of crops, cleaning up of fence corners, close pasturage, the burning over of waste grass land in spring or fall are all preventive measures of great value, since, where these methods are in vogue, the army worm will never be able to get a migratory start, or, in other words, it never becomes so abundant as to necessitate migration.

Bearing in mind the fact that the insect breeds normally in rank grass, such as is usually found along the edges of swamps (not in swamps, for the insect must have comparatively dry earth in which to pupate), or in accidentally over-fertilized spots in pasture lands, and it feeds normally only upon true grasses, the farmer who has once suffered from army worm attacks may easily prevent its recurrence by winter burning or by rotation and clean cultivation.

In cases where the worms have already entered a valuable field of wheat before the farmer has become aware of their presence and too late to render ditching of any avail, some little good may be accomplished if the majority of the worms are full grown, or nearly full grown, by the old method of "dragging the rope." Two men, each having hold of the end of the rope, are sent all through the field, and the rope is dragged over the heads of the grain. The backward jerk of the stalks jars the caterpillars to the ground, and they are unable to ascend to the heads again for some little time. This is a laborious process, however, and has to be repeated almost immediately. It is only to be undertaken where the number of worms in a field is comparatively small and where these are, as before stated, full grown or nearly full grown, since in this case they will stop feeding and enter the ground in a day or two.

AGRICULTURAL DEPRESSION IN THE SOUTH.

The following article on the above subject from the pen of Mr. J. R. Dodge deserves a place in every farmer's scrap book. We heartily recommend it to all our readers. Most of them will find it worthy of several readings and an unlimited amount of thought. Mr. Dodge's article appeared in the Country Gentleman and is as follows:

The Southern farmer complains of poverty, of market returns that do not pay for the labor of production, of land values at a very low ebb. He sees no sunshine in life, is as blue as the skies above him, and well nigh hopeless of anything better in the future. He insists that he is growing cotton at a loss, at 4 cents per pound. Prof. Willborn, of the Agricultural College of Mississippi, found the cost of an acre of cotton in one of the hill counties was \$12; the proceeds of fiber and seed, \$9.35; the loss, \$2.65. In a Southern county, Pike, the cost was \$10.80; the loss, \$1.50, or \$4.50 per bale, requiring three acres to produce it. He estimates the value of all crops of that State in 1898 at \$50,000,000, and cannot attribute more than one tenth of that amount to everything produced exclusive of the staple products of time immemorial—cotton and corn. Instead of two or three million bales grown before the civil war, the product now exceeds 11 millions. The increased consumption of 50 years might dispose of two or three times as much as in 1850, but not four times as much; and it is no wonder he complains that he cannot make laborer's wages in growing cotton.

Southern teachers of agriculture compare the products of their States with those of the upper Mississippi Valley, and find in some three times as much value in production, in some ten times the value of their milk products, and nearly as great a contrast in the value of cattle, and the per capita wealth of some of those Northern Central States four or five times as much. Nor are these statements great exaggerations; they are approximately true. Then there is good reason for Southern dissatisfaction with agricultural conditions.

The cause is too manifest for doubt or uncertainty. It is due to excess in a single crop—too much cotton. There never has been too much corn, the only other crop that controls with cotton the supremacy of cultivation. It is an exhaustive crop, not so much from what it takes from the soil, as from what is wasted—the clean cultivation required, exposure to the intense rays of the sun in summer, the land remaining bare all winter destroying the humus of the soil, leaching it with heavy rainfall and washing and furrowing the surface, thus wasting far more than the crop carries away of soil fertility.

Is there a remedy? There is no doubt of it. It has been suggested for a generation, and found by a few planters wiser in their generation than the masses. It is found in a variety of crops, in keeping the surface covered with a succession of forage crops, in cattle and hogs, beef, mutton and wool. The conservatism of long custom and old methods, the ignorance of the negro of farm practices beyond plowing and cotton picking, the marring of the cotton crop to repay money and supplies advanced, hold agricultural labor and effort to cotton growing by a chain that is difficult to break.

The immense advantage of the South in avoidance of winter feeding of live stock, in abundant winter forage crops of very low cost, is not generally realized. The easy production of nitrogenous feed for balancing carbonaceous rations, is scarcely surpassed anywhere. Dr. Stubbs, of the Louisiana Experiment Station, has grown at Calhoun, on poor pine lands, an acre of Spanish peanuts, containing 192 pounds of nitrogen, worth \$25 at commercial fertilizer value; an acre of velvet beans, containing 191 pounds, and an acre of cow peas, containing 108 pounds; and it is held that the poorest land in the State, by a judicious rotation of these crops, can be made to yield 40 bushels of corn or a bale of cotton to the acre. A three field rotation recommended is corn, corn and peas, and oats, followed by peas. The pea crop with corn may be obtained by simply sowing just before the last plowing of corn, which shades the

young peas and ripens in season to give the whole surface for autumn development. After harvesting corn and peas, oats can be sown, followed by a crop of peas in the spring. This can be done by any farmer, who, with two-thirds of his land in forage crops, and live stock to consume it, would soon get as much for his cotton as he has from the whole. He could further reduce his cotton area by providing ample pastures and broad meadows. Vetches, Japan clover, alfalfa and other plants take the place of Northern grasses, and produce a surfeit of forage and pasturage the year round. It is asserted that an average crop of cow peas will furnish much more of both protein and nitrogen than a normal yield of clover.

With all these facilities for live stock raising, the cotton region has never yet produced meat enough for home use, buying enormous quantities of salt pork, bacon and beef from the West, as well as butter, and horses and mules for plantation work. Hogs have always been grown in these States, and slaughtered about Christmas time, generally small, because neglected and of unimproved stock; yet Prof. Dodeon reports selling one at Baton Rouge last winter that tipped the scales at 800 pounds, dressed.

The opportunities for growing fine beehives have recently been proved by striking successes in Texas; and though there are difficulties to encounter, in heat and Texas fever, they do not and will not prove an insurmountable obstacle to success in cattle-growing. The advantage of an open winter and a great variety and extraordinary cheapness of forage and feed for fattening should prove a great factor in dispelling the present gloom in farm circles and rendering the agriculture of the South profitable and the South prosperous. There is no good reason why such a renovation should not come soon.

Prof. Willborn, of the Mississippi Agricultural College, says: "For some years we have grown hogs to weigh 200 pounds at six months, with an ease and cheapness you know nothing of in the North. Our green winter crops we find make more than one half or three quarters of the food of hogs and cost nothing." And for feeding cattle: "Last fall we weighed a number of spring calves that had run with their mothers, and there was not one that did not grow two pounds or more per day all through the summer."

Among the feeding stuffs peculiar to the South, as yet utilized very little, are cotton seed meal and hulls, rice bran and rice polish, by products of the rice mills.

There are practical evidences, in examples of high success in diversified agriculture and improved live stock breeding and feeding, of the highest possibilities here indicated. If these examples could be increased and become general, and the industrial supremacy of cotton be broken, we should very soon cease to hear complaints of hard times, of poverty and depression, of the unprofitable status of the agriculture of the South.

HOME MIXING OF FERTILIZERS.

There is always more or less inquiry as to how to mix fertilizers. The principal advantage that the farmer gains in home mixing, is in getting just what he wants for his soil and his crop. He does not always secure this when buying commercial fertilizers. The farmer ought to know just what he wants. He ought to know that, whether he makes or buys his fertilizer. His soil will need nitrogen, phosphoric acid and potash, and he should know in what proportion these should be in a fertilizer he proposes to use on a certain soil and for a certain crop. Manufacturers of fertilizers will not help him much with their opinions, for they differ widely as to what certain crops need. There is one manufacturer who offers four brands of fertilizers for potatoes, and they differ in nitrogen 2.46 to 1.23; in phosphoric acid from 9 to 5, and in potash from 5 to 10. Certainly they cannot all be equally good for potatoes.

HOW TO MIX.

The manufacturers of fertilizers are, as a rule, honest, and their products are equal to the guarantee. If there is deception it is usually the result of inexcusable ignorance of the buyer and the excessive "enterprise" of the agent. If the farmer has suspicions that the

[CONTINUED ON PAGE 8.]