THE PROGRESSIVE FARMER.

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

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Each of the above-named papers are requested to keep the list standing on first page and add others, provided y are duly elected. Any paper failto advocate the Ocala platform will dropped from the list promptly. Our ple can now see what papers are blished in their interest.

AGRICULTURE.

The best time to sell butter is when s first made. The longer it is kept larger its deterioration both in lity and quantity. It may surprise e people to know that butter loses weight, and if much exposed to the this loss is a material one when the ce is high. There is some water in butter, and as the water evaporates place is filled by air. This introes germs into the butter and injures keeping qualities.

Southern rice planters are complain of the low prices and in many sec ns are little encouraged to put in the a' acreage next year. Large grow, where well situated, are as a rule disturbed. Many small farmers in lcasieu county, La., have stacked ir rice, permitting it to go through sweating process before threshing. e feeling there is bitter against the rust," claiming the middleman gets arly all the profits, and many grow are disposed to hold their rice.

Dry corn cobs do not burn with a y fierce flame, but saturate two or ee of them with kerosene oil and y will easily light a fire. They are very best material for this purpose, they will hold more oil than any d of wood. It is by saturating someng with kerosene oil that this uld always be used for kindling s. There is no danger from kero e if it is used in this way, and it is quick way to make a brisk fire on d mornings when getting the fire go quickly is an important item for mfort.

It is a mistake to begin feeding stock at has recently been at pasture with e coarse fodder exclusively. Some ain should go with it, else the animal ay get a setback which no after food eding will overcome. Of course the nutritious fodder has to be fed at metime. It is well to give at first, and the animal eat what it will of this, ving a better feed at noon and at ght. Stock that is fed three times a y always has the best appetite in the orning and it is then that the less alatable and nutritious portions of the tion can best be given.

INSECTS INJURIOUS TO TOBACCO.

The tobacco worm, or horn caterpillar, is the chief pest of the tobacco field. It is the larval stage of the large and beautiful night flying moth *Plegethontius Carolina*. The moths usually appear in June and July, and the female lays her eggs singly on the upper surface of the leaves of the tobacco plant. The eggs hatch in about 24 hours and the worms at once begin to eat. They soon bore through the leaf and there after feed upon the underside. The "worm" reaches its full growth in August or September, and soon after leaves the plant and burrows into the ground, where it enters into the pupal stage and remains dormant until the succeeding summer. Some times the earlier hatched worms complete their transformation and the perfect moth issues in the fall and lays eggs upon the second growth tobacco, upon which the worms mature and enter the ground as above stated.

Ask the average farmer if he gives any time and attention to his poultry, and he will tell you, no; the women folks gather the eggs and raise a few young ones, but they do not pay. Of course they do not, nor would the cattle, horses or pigs if looked after the same slipshod manner.

RED CLOVER AS A RENOVATOR.

Correspondence of the Progressive Farmer.

Every one who raises stock recognizes the value of clover as a feed stuff, but few appreciate its true value as a renovator. Clover can be profitably grown in many sections of the South where it is now not even known. Some one will try to grow it in a spasmodic way, and failing, will publish it far and near that red clover in the Gulf States is a failure; or that its growth cannot be depended on in the South Atlantic States.

It is true that it makes a poor growth on a light sandy soil, but there are sections in all the Southern States that are well adapted to the growth of clover as far the soil is concerned. The long hot summers and occasional drougths are of course damaging. The bad effects of summer can be somewhat overcome by planting in the fall and allowing the crop to grow through the winter and make what it will before the hot weather comes on.

The second trouble is liable to occur anywhere and can be obviated to a great extent by deep preparation of the soil, and deep drainage. In this way our cultivated crops are bridged over a drouth and of course the same holds good for clover.

So any lime, clay, loam, or any soil inclined to be stiff, that is well drained and plowed deep will grow clover, provided it has enough fertility in it to give the clover a good start. But this last proviso is the idea that is to be impressed. Clover is one of the best renovators, but it requires considerable encouragement on poor land. Like the Poland China hog it will make splendid returns for extra attention.

On this soil it is often not only advisable, but even necessary to manure the crop to start with. It is quite a common practice in some sections to give a top dressing of land plaster, but on naturally poor soils; or those worn down to the clay, a good supply of fertility must be added in some form. Manure is the surest fertilizer to use, but the immense cost precludes the possibility of using it on large areas. The barnyard manure is good as far as goes, but the trouble on our Southern farms is it does not go far enough.

Now we must look about for a substitute. We want to renovate the land and we select clover to do this, but the clover must get some help. What will it be? It seems that something rich in nitrogen would be called for, as clover is a heavy nitrogen feed, but such is not the case, for just there is where clover is such a cheap renovator. It has the peculiar faculty of storing up nitrogen, which is the most expensive of the three essential elements, in fact it costs over twice as much as the phosphorus or potash and more than both combined.

It does seem that the matter of restoring worn soils is very much simplified. If it is possible to store up nitrogen in an available form in the soil, to say nothing of the phosphorus and potash also laid up for future use, we can soon bring poor soils up to a high state of cultivation.

In addition to this movement in the soil we are growing a valuable feed stuff. So with a good, liberal application of potash and phosphorus in some form, and if the land is very poor add nitrogen, we may reasonably expect a paying crop and a renovating crop at the same time.

October is a good time to sow. Plow deep with a two-horse plow, cut up the land thoroughly with a disc harrow, followed by a smoothing harrow, then sow your seed either with a hand sown or seed drill, and follow with a drag or a roller. If manure is used put on the land broadcast before it is turned, or just ahead of the disc harrow. If commercial fertilizer is used put on just ahead of the disc harrow.

About five hundred pounds of commercial fertilizer will suffice, say 200 pounds of phosphorus, 200 cotton seed meal, and 100 kainit. From ten to fifteen pounds of seed are sown to the acre.

Cut when first heads begin to mature next season, graze lightly afterwards; but again second season, and turn under sod in time to make a corn crop.

B. IRBY,
Prof. of Agriculture N. C. College of Agriculture.

LIBERAL WINTER WHEAT SEEDING.

Except in Illinois and Missouri, there appears to be an increase in the acreage of fall sown wheat in every State of importance east of the Rocky Mountains, according to returns to American Agriculturist. Assuming that the California area to be sown will equal that of the past year, the total winter wheat area seeded for the coming crop would seem to be slightly less than 26,000,000 acres. This is an increase over the area harvested this year of 1,500,000 acres, but it is an increase more apparent than real. A considerable portion of the area sown last fall was not harvested, over 2,000,000 acres being abandoned in Kansas alone. Part of this has been reseeded in this State, and this increase, together with the actual increase in other States, is sufficient to make the area now seeded almost identical with the acreage planted last fall.

The winter wheat prospect has not shown a more discouraging outlook at this date in any recent year. It is late, small, slow in growth and lacking in vitality. There is of course yet ample time for recovery, and for further germination, should an abundance of moisture be received and trying weather of winter be long deferred. The condition of the plant, however, is such that it will be little able to withstand even the ordinary vicissitudes should an early winter come upon the present dry bed.

The increased acreage in the Ohio and Missouri valleys has been largely brought about by the desire to return part of the corn land of this year to meadow, and what has been sown as a nurse crop with grass. Had the season even been reasonably favorable for seeding the acreage planted would have been much larger than it is. This is especially true in Kansas, where the present area appears to be about 3,230,000 acres, or at least 1,000,000 smaller than the area sown last fall. Seeding has been prosecuted under decidedly unfavorable circumstances. Not only has the fall been the driest since signal service records are available, but it follows two years of short rainfall and the ground is dry both on the surface and down to a depth almost without parallel in the history of agriculture.

The outlook in Indiana and Ohio is very poor. Where any growth has been made the plant is small, late and with deficient root growth, fails to cover the ground well and is lacking in vigor. Michigan alone reports a favorable seed time, good growing weather and a satisfactory outlook. In Illinois conditions are varied, but in no section has rainfall been sufficient. With the exception of a few unimportant counties in the southern part of the State, and scattered localities in the southeast, nothing favorable can be said of the Missouri crop. Kansas returns are conflicting. The local rains have supplied sufficient moisture in some districts, while in others the seed planted still lies in a bed of dust, where not blown entirely out of the ground.

The percentages of area sown as compared with acreage harvested are as follows by States:

New York	100	Michigan	112
Pennsylvania	101	Indiana	102
Texas	102	Illinois	95
Arkansas	103	Wisconsin	108
Tennessee	99	Iowa	115
Kentucky	101	Missouri	90
Ohio	105	Kansas	170
Nebraska	125	Average	109 1

THE RECORD BREAKING CORN CROP.

Husking has developed some disappointment in the yield of corn in many districts where the heaviest crop was expected. The shrinkage, while not serious, is enough to reduce the average yield for the country to moderate figures. While the total crop is the largest ever grown, it is the result of the heavy acreage rather than an over abundant yield. Central Illinois, Kansas and local districts in Iowa are most affected by this diminished expectation. To all outward appearances ears as they hung in the husk were filled, but an actual handling of the crop as reported by American Agriculturist's complete corps of correspondents in every surplus State develops the fact that the hot, dry weather experienced during the last six weeks of the growing season caused some premature ripening, shortened the ear and left the grain a trifle chaffy. Of course these conditions, in extreme, only occur in rather limited districts, but the damage in the aggregate was large.

The acreage was estimated in July at 81,763,000 acres, and our final investigation makes but little change, the area harvested being estimated at 81,488,000 acres. The average yield is returned at 27 9 bushels, making a total crop of 2,272,378,000 bushels. The rate of yield is less than 1 bushel above the yield from the crops of 1889 and 1891, but the total product is 160,000,000 bushels larger than in 1889, the largest previously grown. The detailed crop by States is estimated as follow:

CORN YIELD BY STATES.

	Acres.	Yield.	Bushels.
N. Y	510 000	32 0	16 320,000
Pa	1.302,000	32 5	42 315 000
Texas	3 583 000	30.0	116 089 000
Ark	2.104,000	24 0	50 496 000
Tenn	3 361,000	26 5	89 067 000
W. Va	711,000	27 0	19,197,000
Ky	3 164,000	32 0	101,248 000
Ohio	3 237 000	31 0	100 347 000
Mich	1,073,000	29 5	31 654 000
Ind	3 925 000	35 5	139,338,000
Illinois	7 850 000	36 0	282 600 000
Wis	1,250.000	32 0	40 000,000
Minn	1.192 000	31 0	37 952 000
Iowa	7 744 000	38 0	294,272 000
Missouri	6 688 000	35 2	235 418 000
Kansas	8 499,000	25 0	212 475,000
Nebraska	6 518 000	16 5	107 547,000
N. Dakota	24 000	22 2	5 328 000
S. Dakota	1,104,000	13 2	14,573 000
California	74 000	29 2	2 146 000
Oregon	15 000	23 0	345 000
Wash'ton	11,000	20 0	220.000
Other	17 549,000	19 0	333 431,000
Total	81,488 000	27 9	2,272,887,000

—American Agriculturist.

WALNUT CULTURE AT THE SOUTH.

E. T. W. Wilmington, N. C.—I have about three and a half acres of land for which I have no use now; it has grown up to pines. How will it do to plant it to our native walnuts, say 15x15 feet, making about 196 trees to the acre? What would be the best time to plant? How should they be planted? What kind of manure is best to use? What age nuts are best? Should they be planted with the outside hulls on them or not?

ANSWER.—Clear the pines away and get the land in good order. Do not burn the pines on the land, as the ashes will be worth less than the vegetable matter you will destroy in the burning. Keep the walnuts in the outer cover till ready to plant, for if they are allowed to become dry, they will not grow well. Check out the land eight feet each way, and at each intersection plant two or three nuts to insure a stand. The planting should be done this fall as soon as you can get the land ready. Cultivate the first season as you would corn, and take out the surplus trees in the fall so as to leave one at each place. These surplus trees will be of use to replace where there has been a failure. At the end of the second year, you will have a lot of trees that will be of salable size and you may dispose of all so as to leave the trees standing 16 feet each way. In the course of time, you will find that this is too close; but by that time the trees will have attained a size that will give them some value as timber, and another thinning as before may be made, leaving them 32 feet apart. Acid phosphate and potash will make a good dressing for the trees while small, but it will hardly pay to manure them at all. They should be well cultivated till July each year, and then the ground sown to peas, on which hogs could be pastured in the fall when mature, provided they have nose jewels to prevent their rooting. The soil treated in this way will soon get fertile enough.

W. F. MASSEY.

Would you not rather vote for what you want and not get it than to vote for what you do not want and get it? Then why do you vote for a goldbug party when you want free silver?—Advocate, Salt Lake, Utah.

THE DAIRY.

PROFITABLE BUTTER MAKING.

Correspondence of the Progressive Farmer.

I think that it will make every one who owns cows a better dairyman to sit down and compare the present price of butter with that of other farm products.

It is not necessary here to make quotations on grain, vegetables and pork, common agricultural products, for we all know how low they are, but let us think a moment on butter.

Butter that has any decent quality about it at all is in most localities bringing not less than twenty cents per pound, and it should be accounted poor milk that will yield less than five pounds of butter to the hundred weight.

Can't you see that if you judiciously put some of the cheap grain into your cows now, the twenty cent butter that it will make will pay you better than any other farm product?

If you should so prefer you can let a creamery do the making for you, but the profits of this plan will depend largely on your own capability as a butter maker.

I hear some say, "But my milk will not produce near five pounds of butter to the hundred."

Perhaps you do not know how much it could be made to produce, for you may not be getting the butter all out of it.

The Babcock test will tell you what per cent. of butter it ought to yield, and it is your duty to your own interests to employ a method of cream extraction that will give you practically all the butter fat.

The old careless way of setting the milk in pans and crocks in the kitchen pantry will not do this, nor will it result in butter of good quality and flavor.

The dairy room must be entirely separated from the living apartments, and means taken to secure all of the cream. This can be accomplished by correctly practicing the cold deep setting or Swedish system, and if practiced in a good portable creamery many economies and conveniences will result.

Whether your method be by cold deep setting of the milk, or extraction by the hand separator, keep the whole process, including the butter making, entirely apart from the kitchen. If you don't your butter may not bring more than a shilling a pound.

Bear constantly in mind above all things that after you have secured good cows and feed them scientifically, and practice all of the arts of fine butter making, you still may not be making money because your skim milk is too rich.

It is very important to think on and act on these facts now at the beginning of winter, when butter making is so far ahead of other farm interests in point of profit. GEO. E. NEWELL.

QUALITY OF BUTTER OF THE BREEDS IN THE WORLD'S FAIR TESTS.

Correspondence of the Progressive Farmer.

All the butter made in the Chicago tests was scored by experts, appointed by Chief Buchanan, who were practical men, standing high in their calling. A sample of the butter was taken each day by the butter maker. This butter was scored about once a week. None of the judges scoring had any means of knowing what butter they were judging. When the scores were made up they were sent to Chief Buchanan, who, after detaching the names of the scorers, sent the scores to the Testing Committee for entry and record. It was impossible for the judges to know what butter they were scoring, except such knowledge as they would obtain of the general characteristics of the breeds. The scale of points was as follows: Flavor, 55; grain, 25; solidity, 10; color 10. The prices allowed for the butter were as follows:

That scoring from
75 to 80 points, 25c. per pound.
80 " 85 " 30c. " "
85 " 90 " 35c. " "
90 " 95 " 40c. " "
95 " 100 " 45c. " "

Those who have followed these tests are aware that the Jerseys won at every point—in quantity of milk, quantity of solids other than butter fat, quantity of butter, quantity of cheese, and in net profit. But it is an important matter to determine which of the breeds produced the highest quality of butter. Inasmuch as that scoring highest was rated at the highest price, the value per pound of butter fixed under the scoring before referred to will determine the relative merits of the butter of the various breeds. An examination of the average price per pound of the butter in the 90 and 30 days tests will show that the Jersey butter was the highest in quality in both, the average price per pound for the three breeds being as follows: In the 90 days' test—Jerseys, 40 88 100c; Guernseys, 40 33 100; Short Horns, 40c. In the 30 days' test—Jerseys, 46 5-100c.; Guernseys, 45 53 100c.; Short-Horns, 45 66 100c. These figures prove most conclusively that the Jersey butter was that possessing the highest quality.

Western dairymen labor under a great disadvantage in the fact that usually the water they give their cows is surface water, and not to be compared with the clear spring water which the dairymen of New England and the dairy regions of New York have in great abundance. This matter of pure water will probably always give the dairymen of the East an advantage. They have also sweeter and better pastures than can be found in the Western States, where the soil has only been turned to dairying after its mineral plant food has become too exhausted to grow grain with profit.

CHURNING AND SALTING.

There are very few farmers' wives who ever think of using a thermometer with the churn. Some times the butter will churn in ten minutes and some times it will take hours. Another reason why dairy butter is poor and of uneven quality is that farmers' wives take the milk and skim it and put the cream in a crock; the next night they do the same, and continue doing so until they have sufficient for a churning. The consequence is that the cream has not the same consistency, some of it is acid and some is sweet; it has not all ripened. It is placed all together in the churn, without any regard to the temperature, and some times it comes out white, curdy or stringy, and they are never sure what they are making. Cream requires to be ripened. The uneven quality of our butter arises from ignorance of the process of butter making, and the want of attention to details. Butter is generally too much salted for an export article. Butter with half an ounce of pure pulverized salt to the pound suits the English market best. That is half the quantity the United States dairymen use.

The hog has less hair than other domestic animals, and it is especially liable to be injured by dampness. Where a number of pigs are kept together they will pile over each other, and if the quarters are at all damp, they will be reaking with sweat and wet in the morning. In most places the feeding place is much less protected from the wind than is the sleeping pen. We have often seen hogs roused from their warm bed and standing shivering with cold while eating their breakfast. In this way many fattening hogs take severe colds. This, of course, interferes with their thrift, and, what is even more important, the pork made from such hogs will not be healthful for those who eat it.

POOR FEED, POOR MILK.

The cow is a machine for turning food into milk, and it matters not how good the machine is, it cannot work without material to work upon. Just how to feed in order to realize the largest profit is a question on which there is a diversity of opinion. Some think it pays to feed corn, bran, and chopped stuffs. Others are of a different opinion, but are satisfied with a smaller quantity of milk, if it is made from unmarketable produce and pasture. Now, those who feed beef cattle know that if they do not give their cattle more than will merely supply the requirements of life, they will never make beef, and it is just so with cows; it is the extra food over and above what is actually required to keep the machine in working order, that can be turned into milk. The dairyman that is afraid to put in this extra food for fear he will never see it again, is like a man who, after being at the expense of building a mill, is afraid to buy wheat to grind in it. As far as theory is concerned, one would think that if all the profit is derived from the extra food, the more of it the better. But to judge from the practice of many, it is evident they are unbelievers.

An Arkansas editor says of his State: "We have mountains so high that you can tickle the feet of the free silver angels in heaven, and gorges so deep that you can descend to their base and hand down ice to the goldbugs in the infernal regions."—People's Pilot.