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

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PAPERS.

Progressive Farmer, State Organ,	Raleigh, N. C.
Caucasian,	Raleigh, N. C.
Mercury,	Hickory, N. C.
Rattler,	Whitakers, N. C.
Our Home,	Beaver Dam, N. C.
The Populist,	Lumberton, N. C.
The People's Paper,	Charlotte, N. C.
The Vestibule,	Concord, N. C.
The Plow-Boy	Wadesboro, N. C.
Carolina Watchman,	Salisbury, N. C.

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

AGRICULTURE.

Who will get caught again when the pastures dry up in August? A field of fodder corn in May is the best insurance against a long dry spell later on.

Upon a farm there is no excuse for a stunted calf, a stunted tree or a stunted boy. Such products will never be satisfactory, and somebody is to blame.

For thousands of years the farmer has been working with his hands and others have to a great extent reaped the reward of his toil. Now he is beginning to work with his brain, with the result of reaping the reward himself.

More than half the yield of anything you cultivate depends upon the effort you put forth to make it productive. Fertility of soil is the basis of all real profit, and the farmer who does not increase the productive capacity of his soil is surely going down hill.

Not only must the soil contain food elements but they must be thoroughly mixed and incorporated in the soil, to become available as plant food. Therefore let the ground be heavily manured, and every square inch for a foot in depth well pulverized.

A Southern farmer says that good results are obtained by feeding Russian sunflower seeds to horses, hogs and other stock. The feeding of this requires an exercise of judgment, as the seeds are very rich, and should be mixed or combined with bran.

If manure has any value, it is probably fermenting, even in the coldest weather, if left in a pile. A slight covering of dry earth will absorb ammonia, and will, if left on while the manure rots down, make it nearly or quite as rich as the manure itself. Its work in absorbing ammonia continues even when the pile is turned.

When the cow does not come up to the point of profitable production it is often not her fault, but that of the owner. He keeps her too cheaply or does not feed her with good judgment. Give the cows we have a little better care and a little better feed and see if they will not yield more than a barren profit.

GIANT NOTWEED OR SACHALINE

Polygonum Sachalinense.

This is a hardy herbacecus perennial, six to twelve feet high, with strong, extensively creeping rootstocks. The plant is a native of an island off the Siberian Coast, where it grows along moist river banks. It was introduced into England about 1870 and has been quite generally cultivated in the botanical gardens of Europe. At a time of great drought in France in 1893, it was discovered that cattle would eat the leaves and tender branches of this plant and a member of the French Academy presented a paper suggesting that it might prove a valuable addition to the list of fodder plants. This seems to be the first intimation that sachaline had any forage value, but the idea was at once taken up by others and the hardiness, the rapid and vigorous growth and othar qualities of the plant were extolled and enlarged upon by interested parties. Within the past year or so most extravagant accounts of the value of sachaline for forage have appeared in American papers and seed catalogues.

All who have had experience with the plant advise caution in its introduction because of its very strong, spreading and persistent rootstocks. A writer in the Rural New Yorker who has had some experience with the plant, says: "If the land will grow anything else, do not plant it. Plant corn for feed, not Polygonum Sachalinense unless you want trouble." A writer in Burpee's Farm Annual says that the farmers in this country will be terribly disappointed if they expect to realise the hopes that the glowing descriptions from Europe would seem to warrant.

This plant is described in Circular No. 5 of the Division of Botany of the United States Department of Agriculture. It is advertised in some of the 1897 seed catalogues. The advice of the Experiment Station to intending purchasers is, don't.

CHAS D. WOODS Director.
State College, April 3 1897.

DAMAGE BY THE FLOOD.

A chart has been prepared by the Department of Agriculture showing the vast area flooded and the amount of the damage. The figures are from the census.

The total area under water on April 6th was about 15 800 square miles, of which 7 900 square miles was in Mississippi, 4 500 square miles in Arkansas, 1,750 square miles in Mississippi, 1,200 in Tennessee, and 450 in Louisiana.

This region contained in 1890 a population of 379 685, of which 186 480, or about one half, was in Mississippi, 100,235 in Arkansas, and the remainder almost equally divided between Missouri and Tennessee.

The flooded districts contain, it is estimated, about 39,500 farms, of which about 18,500 are in Mississippi, nearly 10,000 in Arkansas, and a like number about equally divided between Missouri and Tennessee. These farms contain a total area of about 3,800,000 acres, one-half of which is in Mississippi and rather over one-fourth in Arkansas, the proportions in Missouri and Tennessee being about the same as in the case of the number of farms.

The total value of these farms, with their improvements, farm implements, etc., is about $65 000 000.

LIME.

Lime is a much used and very often at the same time a much abused material on the farm. It has a very important role to play, and if handled in the proper manner is a valuable aid to the farmer. There are many who use this material again and again with a mistaken notion as to its true functions in the soil. In time, however, their experience teaches them the true place of lime in agriculture, but often their lands have been almost exhausted before they gain their wisdom, says the Western Rural.

While lime has a value as a plant food, its greatest worth on the farm is due to its physical effect on the soil itself. It is very seldom that a soil does not contain a sufficient quantity of lime to furnish this ingredient as plant food pure and simple.

Briefly described, the actions of lime are as follows: If applied on a sandy soil, it fills up the openings, makes the particles adhere closer, causes them to retain moisture better, to absorb less heat and retain more at night. On clay soils it separates the particles, making the soil more porous, thus easier for the passage of water and air, and therefore makes the soil warmer and easier to work. Lime also hastens the decay of vegetable matter in the soil which, of course, renders the nitrogen more available. If a soil is sour, an application of lime will sweeten it. If a green crop is plowed under, an application of lime will prevent the soil from becoming acid.

There is one effect of lime that has no doubt frequently been noticed, although wrong conclusions have been drawn from it. It has often been experienced that an application of lime proves very beneficial to clovers of all kinds. It was formerly thought that the lime itself was the only fertilizer needed for the clover; it is now known, however, that the beneficial action of the lime upon clover is due to the fact that the lime liberates other plant food in the soil, notably potash, which is of so much importance in successful clover culture. It will be seen, however, that continued application of lime alone would soon cause the soil to become exhausted of its natural supply not only of potash, but also of phosphoric acid, and in time the land would become clover sick, which is a condition often met with. This can be avoided by keeping up the supply of these two ingredients through applications of the cheaper forms of potash salts and phosphates.

In applying lime, it is best to put this material on a plowed surface, either during the fall or early in the spring, before growing season. It is unnecessary to plow the lime in, as it will soon work itself down into the soil. Lime is usually applied at the rate of one to three tons at a time, and once in every six years is generally sufficient. Some prefer to use smaller quantities at more frequent intervals, and claim to get better results. Lime should never be mixed with acid phosphate or ammoniated fertilizers, as it will make the phosphoric acid less soluble and drive off the ammonia. The best results are obtained from lime when the soil is kept well supplied with the mineral ingredients, phosphoric acid and potash. The nitrogen can be furnished by growing clover or peas. This is a rational and economical plan to follow, and will gradually increase the productive capacity of any soil.

Owing to its earliness and the ease with which it is cultivated, it was natural that for a long time sandy soil should be preferred by the fruit grower. But it is becoming understood that well underdrained, heavy soils can be worked nearly or quite as early as sandy soils, and these are much richer in the mineral elements of plant food that are essential in perfecting fruit of any kind. In many of the winter fruits the easiness of ripening on light soil becomes a disadvantage, as it makes late fall and early winter fruits of varieties that, when grown on heavier soil, should be kept in good condition until spring.

CLOVER AND COWPEAS.

In Bulletin No. 34, of the Missouri Agricultural Experiment Station, a full discussion of the value of clover and cowpeas is given, and practical suggestions are made as to the best methods of securing a stand growing these crops.

These plants have a power not possessed by the other common farm crops, such as corn, wheat, timothy and blue grass—that of gathering nitrogen from the air. It is supposed that with judicious care and management the nitrogen supply in reasonably good soils may be maintained almost indefinitely by the proper use of those crops for green manuring.

The cowpea is recommended for very poor soils in all sections of the State, and for all soils in the southern half of Missouri. They should not be sowed too early in the spring. Last season the station secured a crop of one and one half tons of field cured cowpea hay per acre, seeding on wheat stubble, without plowing, after the wheat had been harvested July 1. The peas were removed, and the land again sowed in wheat without being broken, September 30. In other words, the crop of cowpeas was grown on the land during the season which, in ordinary practice, would have remained entirely idle.

It is generally believed by the farmers that green manure crops should be turned under when very green, in order to produce valuable manure, and that if allowed to mature or become dry, much of the valuable fertilizing material will be lost. This is entirely incorrect. A larger yield will be obtained by allowing the crops to become mature. Experiments show that clover, when plowed under in the blossom, had little more than one third as much fertilizing value as when matured.

FARM EXPERIMENTS.

As long as improvement is possible, experiments must be made to determine the value of new seeds or new methods of doing work. The farmer who neglects experiments is depriving himself of a great deal of pleasure and much knowledge that will be of great value to him, whether his experiments result in success or failure. No one should carry experiments to the extreme that loss will be disastrous, but should try them on a small scale to determine the probable effect of larger operations.

In the case of seeds it is always safe to hold to old and well tried varieties until others have proven themselves better, for no variety should be replaced by one that is not better. A new variety that seems just as good as the old one may fail another year even when it succeeds the first time of trial. Many times seedsmen are interested in inducing patrons to purchase novelties because they are sold at a very high price. Quite often seeds of novelties at ten times the price for ordinary seeds of the same sort are cheap because of their great improvement, and it is not a bad practice to buy a packet of each of the principal novelties in garden seeds and give them a trial. Very often seedsmen recommend a certain new variety very highly, but upon trial they prove no improvement, or not as good as old varieties, and the seedsman is blamed, when the fact is that the difference in climate, soil or cultivation may have made all the difference between great improvement and absolute failure in this respect.

The experiment stations in the different States are doing a good work in determining the quantity of seed to be sown on a given area of land, but they cannot determine, except in a general way, what is best for individual farmers to adopt in the way of varieties. A new crop that would yield well or poorly at the experiment station might produce results exactly the reverse in a part of the State remote from the station.

LIVE STOCK.

WORTH TRYING.

I will say to those wanting a remedy to remove warts from cattle try hog's lard. Apply the lard to the warts freely at intervals of three or four days until you have made several applications, or the warts disappear.

To those wanting a remedy to prevent peaches being wormy, will say rake away some of the top soil for a short distance around each tree, in the spring, and take good wood ashes and sprinkle over the roots near the body of the trees, about two or three quarts to each tree, according to size, then rake back the soil on the ashes.—N. F. Lisles, Negrohead, N. C., in Home and Farm.

RATIONS FOR SHEEP.

Corn and oats in equal parts make one of the very best grain rations for sheep. Corn alone is too heating and fattening. Moreover, if sheep are fed exclusively on corn for any considerable length of time they lose their wool.

It costs just as much to keep a sheep of a certain weight right, says the St. Louis Republic. But, if with good care in selecting and breeding, and with good feeding, the sheep can be made to give eight or nine pounds of wool instead of four or five the extra weight of wool will be that much additional profit. When it barely pays to keep a sheep that shears only four or five pounds, one that shears seven or eight will give a good per cent. on the money invested. In addition in nearly all cases the heavier fleece will be of a better quality.

While it is always best to feed with as little waste as possible, it is rarely good economy to compel the sheep to eat up the hay in their racks as clean as with cattle and horses, unless it is unusually fine. Still, care must be taken not to feed too much, as sheep are inclined to waste their feed if overfed. But considerable waste can be avoided by having good racks. The slats should be wide enough apart to allow the sheep to put their heads entirely in the racks and eat or they should be so close as to only allow them to insert their noses. If made in this way, however, it is important that they be made slanting, so that the hay will gradually sink down and always be within reach of the sheep.

Every day that the weather will permit the sheep should be turned out in the morning to get fresh air and water. At the same time their quarters can be well aired. Sheep do not bear close confinement well. Whenever it is possible the doors of their quarters should be left open during the day so that they can run in and out, as suits them. With the breeding ewes especially, care should be taken to have the doors to their quarters wide, so as to lessen the risk in their running in and out. It will still further lessen the risk of injury if the doors are hung to slide open rather than to open and shut with common hinges.

In extremely cold weather more corn may be given than when it is milder, but do not make it an exclusive ration at any time. Give oats, barley, mill feed and other materials to make up a good variety. Sliced turnips with wheat bran sprinkled over them makes a good feed for sheep, especially when grain is given at other meals. The condition of the sheep is the best criterion as to what the quality of the ration should be. One of the most economical rations is unthreshed oats, run through a dampener sufficient to make the bran stick to the straw. Give them all they will eat up clean.

COST OF HOG RAISING IN THE SOUTH.

I am a firm believer in our ability to raise hog products on the bottom lands at a good profit, even at the present very low price of bacon. I believe the man who sticks to hogs, year in and year out, when bacon is high and when it is low, when corn is abundant and when it is scarce, when cholera or some other fatality is raging and when it is absent, will find that the hog business will pay a larger per cent. than almost any other venture. I have never kept books against my plantation herd, so that I cannot be definite as to cost of my port, but I can come pretty near it by analysis. I have kept an accurate account against my herd of blooded hogs, and I find that they cost me on an average 2 cents per head of little and big (none under 4 months) per day, and that with everything on full feed of bought feed, at the following prices: Corn 40 cents per bushel, oats 23 cents, shorts $14 per ton and linseed meal 28. This rate kept up until the pig is 8 months old would make him cost (leaving out of account the 2 months suckling) $3 60. Such a pig, if he has done well, ought to weigh 200 pounds (most writers say 240 to 300 pound) and I have had them to go 240 to 300 myself. That weight at that price shows a cost of 18c. per pound; all that it is worth over that is profit. If hogs are worth 3½ cents per pound, can't you figure a good profit? Last fall, a neighbor and myself made a contract with a city butcher for 28,000 pounds hogs at 3½ cents per pound. But I claim that the hog designed for pork at 8 to 10 months, should not cost as much as my blooded hogs. I feed them with a view the first six months to bone and muscle development, whereas the meat hog could be pushed for fat at less expense and with greater weight.—W. L. Foster, Caddo Co., La., in Farm and Home.

RYE FOR HOGS.

The following questions about feeding rye to swine are asked John Cownie, who answers them through the Homestead:

(1) Is unground rye good for fattening hogs? Corn is far superior to rye for fattening hogs, and if rye is fed it should be ground, mixed with bran and shorts or ground oats and made into a swill before being fed.

(2) Is rye good for young pigs after they are old enough to eat, not as full feed, but, say once a day? Is it a healthful food? Rye makes good, healthful food for pigs when ground and made into swill, but it is altogether too strong when fed alone, and should be mixed with shorts and ground oats.

(3) Would soaked rye, once a day, make good feed for sows suckling pigs? No, it is altogether too strong a food, and, as already stated, should not be fed alone.

(4) Would corn, oats and rye, ground, make a good swill for suckling pigs; also would it be good for the pigs, and in what proportion should the grain be mixed? Would some bran mixed with the foregoing make it any better? Neither corn or rye meal are fit for a brood sow and should not be fed for the reasons already given. Ground oats, shorts and bran, made into a swill, are far better adapted for brood sows, either before or after farrowing than such strong, heavy grain as rye and corn. If corn or rye meal are fed, it must be sparingly, or fever in the sows will result, causing, perhaps, the loss of the pigs.

HORTICULTURE

NEWLY PLANTED TREES.

Trees just planted will require some care during summer. Their forces have not yet become active like those that have been long established. Spring drouths are often fatal to them and with even the best of care in the spring they are still weak and ill prepared to withstand the summer heat. They really need a good rain every week or or ten days to carry them along. When considerable tracts have been planted it will often pay to haul water on wagons, and go through the orchard and apply some to each tree. Some of the earth should be first removed, and after watering the dry soil should be replaced upon that which has been wet.

When valuable trees are planted on home grounds regular and heavy watering should be the rule, but the watered soil should always be mulched, either by dry soil or straw. Even when the growth of the tree is apparently good, it is well to assist it by frequently stirring up the soil around the stem until as late as the middle of August, taking care, however, not to injure the trees by tools. If stems receive injury from singletrees, lawn mowers, or otherwise, cover the wound with grafting wax, because as yet the circulation is feeble and such injuries may be fatal, the trees not having sufficient sap flow to repair the damage before the close of the growing season. The wounds also open up the vital fluids to the danger of infection from injurious fungi in the air.

The forenoon sun and light are beneficial to the trees, but the sun and light of the afternoon are too drying and too penetrating for the welfare of the trees during their first season. Several stakes or boards on the south and west sides of a valuable tree during its first summer will often save it. Bands of prairie hay firmly twisted and wound around the trunks well up into the limbs will frequently be of material advantage, especially if they be wet occasionally. The watering should be thorough and in the cool of the evening.—Farm and Home.

FEEDING FRUIT TREES.

Manure either for mulching or digging in should be the best that can be procured, and it should be applied to the trees in such quantities as their condition demands. Generally speaking, the person in charge will be in the best position to determine the quantity needed, says the Western Ploughman.

When farmyard or stable manure is not to be had, much good may be done by utilizing heaps of soil gathered from roadsides, the accumulations of rubbish of all kinds generally found in large quantities in gardens of any size, and last, but not least, charred refuse. It is always best to mix a fair quantity of freshly slaked lime with the two first mentioned. When this is done and a liberal dressing of the compost is applied to the fruit quarters, it forms a valuable fertilizing agent. Land that has plenty of manure in it will be benefited by a good dusting of lime, and the latter should always be used in varying quantities for stone fruits.

SOLID FACTS ABOUT VEGETABLES.

Few squash growers or squash lovers know to what extent they are indebted to the veteran Marblehead (Mass.) seedsman, Mr. James J. H. Gregory. Always an enthusiast on the squash subject, Mr. Gregory takes just pride in the fact that he has introduced more standard varieties of this delicious and useful vegetable than any other seed grower. To him is due the introduction of the long famous Hubbard and Marblehead, the widely celebrated Butman, White Chestnut, Cocoanut, and many others.

All of Mr. Gregory's enthusiasm and energy have not been expended on squashes, however, as growers of his All Seasoned, Deep Head and Hard Head Cabbages and of his Early Ohio and Burbank Potatoes can attest. Of late the wrinkled varieties of peas have been the object of Mr. Gregory's special and deep study, resulting in the introduction of the splendid an widely known Nott's Excelsior. The zenith of pea culture has been reached in Gregory's Electric Pea. Remarkably early, wonderfully prolific and of such excellent quality, it must soon entirely supersede the hard varieties of early peas. Gregory's Seed Catalog is a practical, common sense book that should be in the hands of every planter. J. J. H. Gregory and Son, Marblehead, Mass., mail it free to any one that request it.