

# PROGRESSIVE FARMER

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

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## Agriculture.

### THE VALUE OF RAPE AS FOOD FOR SHEEP, SWINE AND POULTRY.

An Exhaustive Article by Prof. Johnson Covering Every Phase of This Important Subject—All About the Cultivation of a Crop the Value of Which Has Been Demonstrated and Which is Becoming Popular in This and Adjoining States.

Correspondence of The Progressive Farmer.

Among the many forage plants of the South there are but few of more importance to the maker of pork or mutton than rape.

Rape is a native of the Old World, where it has long been cultivated as a salad for human consumption and as a fodder for domestic animals. In some sections it is grown to a considerable extent for the seed, from which oil is extracted, after which the residue is made into a cake or meal to be used as a concentrated food stuff. This plant has been grown in Northern sections of the United States and used for forage purposes for something like ten or fifteen years. In some States large areas are sown to be grazed off by sheep and hogs, for which, with the addition of some corn or other starchy foods, it seems to form almost a perfect ration.

For several years after its introduction to the United States it was thought to be of value only in the far North; therefore its cultivation in the South was not attempted until within the last few years. It is not grown yet on one out of a hundred farms where it should be of great profit.

It is not only valuable in itself alone, but it adds to the efficiency of other fodders and grains with which it is used. Four acres of corn with the addition of an acre in rape pasture, will give more pork or mutton than would five acres of corn without the help of rape.

It is not necessary though in growing rape in the South to set apart one field for that and nothing else. Rape is a cool weather plant and continues to grow during all the more open weather from fall to spring, but a few hot dry days such as are apt to occur late in May or during the summer interferes with its growth so completely as to ruin it for forage purposes. This winter-growing habit enables the farmer to raise a crop of corn, tobacco or potatoes, and in some cases cotton, on a piece of land during the summer and a crop of rape during winter.

This practice cannot be kept up very long, however, without the use of liberal quantities of fertilizers, as rape requires as much nourishment as nearly any other crop, and must draw it from the soil. It is far better to follow a rotation in which rape will follow a nitrogen-gathering crop such as peas or clover; this does away with the need of applying fertilizers rich in nitrogen, leaving only potash and phosphorus to be supplied to the crop. The phosphorus for a crop of one acre of rape can be secured in an application of from one hundred and fifty to two hundred pounds of South Carolina rock or "floats" showing 26 to 28 per cent. phosphoric acid. The potash necessary would be supplied in from eighty to one hundred pounds of muriate of potash containing 50 per cent. actual potash. In case leguminous crops have been grown on the soil within the past year or two no nitrogen need be applied artificially; while if the land has been devoted to the growth of corn, or cotton or tobacco for several years without clover or peas, nitrogen should be applied at the rate of from fifteen to twenty pounds to the acre. This amount is found in one hundred pounds of sulphate of ammonia, or one hundred and twenty pounds of nitrate of soda, or in from two hundred and fifty to three hundred pounds of cotton seed meal, or the manure made from feeding three hundred pounds of the meal to milch cows.

Fair fields of rape, however, may be secured from fertile, well-prepared soils without the aid of any commercial fertilizer whatever. A soil that will produce a good growth of turnips or cabbage will, under fair treatment, bring a good crop of

rape. A deep, moist, but well drained clayey loam well supplied with decomposed vegetable matter, is the very best for this crop.

In case the soil has been in corn or tobacco the preparation required to get rid of the stubble will be all that is necessary in making it ready to receive the rape seed, which should be planted in this section of the country during the last half of September or early in October. If the soil has been laying idle or in some sown crop during the past year, it should be plowed in August, rather deep. If farm yard manure is to be used it should be scattered over the plowed ground and worked in well with cultivator or harrow. Be careful to have the soil in good condition, well plowed and worked down smooth and even, before the seed are planted.

If land is limited and a large amount of forage is desired best results will be had by planting in rows about two feet apart, with the seed sown so there will be at least two plants for every inch of row. The seed may be sown by hand, scattering them along the shallow furrow, and covered with a light rake. From two and a half to three pounds of seed will be required for an acre when planted in rows.

Cultivation should be given as soon as enough of the plants are up to show the row and continue at intervals of every ten days or two weeks, until the leaves meet between the rows. Three cultivations will usually be all that is required. A fine pointed cultivator, with the points set to run not more than three inches deep, will give better satisfaction than a larger plow or one running deeper.

Where land is abundant it is often advisable to sow the seed broadcast, using from five to six pounds of seed to the acre. If the sowing is made on very loose soil, just before a hard rain, it will not be necessary to cover by artificial means, but if the soil is at all hard or not thoroughly prepared, it will be best to cover by dragging a heavy brush or light harrow over the seed. When the seed is sown broadcast no after cultivation is needed, in fact none can be given.

Grazing or cutting should begin as soon as the plants are from six to eight inches high and covering the ground fully. Stock may be allowed to roam over the entire field to eat where they desire, but more forage will be got from the crop if the animals are confined to a part of the field until all the leaves are eaten off back to the main stalks, then changed to a fresh plot until the first has time to grow out again. To carry on the work in this manner one section should be grazed only a few days after which it should rest five or six weeks, or until the new growth is nearly as large as the first was when grazing began. In this manner one field may be grazed off four or five times during the season. An acre of good fertile soil should furnish grazing enough for from five to ten average sized sheep or hogs, weighing from fifty to one hundred pounds each.

Rape remained green in our fields here during the most severe weather of the past two winters and starts a rapid growth whenever a few warm days come. Of the many varieties offered by some seed men, the Dwarf, Essex and Victoria are the only two worthy of cultivation.

For best development the growing animal requires about one pound of muscle and lean meat makers to five or six of heat and fat producers. Corn contains only one of the former to about nine of the latter while rape has one of the former to three of the latter, from which it appears that neither one alone makes a perfect food but the two taken together with some pea vine or clover hay, and for milch cows some cotton seed meal, will make what is known as a properly balanced ration.

A few words of caution now to the prospective grower of this forage plant may not come amiss. This is distinctly a cool weather plant and will not do well during summer. It should not be planted before Septem-

ber nor after the first half of March. It wants good soil and will not give satisfaction on poor or wornout fields. It is a nitrogen consumer and does not add any fertility to the soil. Its value lays in its use as a grazing or soiling crop. It is worthless as a hay or dry fodder plant. There is a great deal of doubt in regard to its being of any value in making ensilages for which purpose we do not advise its cultivation.

To a certain extent rape growing on many farms in the South is experimental and should be gone into on a small scale, at least for a few years. It is of greatest value to sheep, swine and poultry. Geese and ducks are exceptionally fond of it. Cattle eat it and seem to thrive upon it but before any iron-bound statement can be made as to its desirability for beef and dairy animals more experiments are necessary.

J. M. JOHNSON,  
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### COTTON SEED EXPERIMENT.

An experiment at the Arkansas Station to determine the relative merit of cotton seed grown near the bottom of the stalks and those grown near the top is interesting to cotton planters. Seeds were taken from select bolls near the bottom of the stalks, and also from bolls near the top of the stalks. Of the latter, about one-half did not germinate at all, and the plants that came from those that did were puny and did not do well. The yields were: From bottom bolls, 1,043 pounds seed cotton per acre; top bolls, 760 pounds. The latter was also much later. There is no staple crop in which so little care is taken in seed selection as cotton, and there is no crop, staple or special, in which careful selection of seed is more important. Farmers should select their seed cotton in the field. If they would go into the fields at first picking, and carefully select the stalks they wish to reproduce and pick selected bolls until enough is secured for planting the following year, and have the same carefully ginned, separated from other cotton, a great improvement in both yield and quality could probably be secured in even one year.

### WIDE TIRES; RAISING COLTS.

Correspondence of The Progressive Farmer.

I was glad to see the letter in your last issue from a Cleveland county correspondent commending the wide tire. If it could be exclusively used for all carting, or all heavy loads, in any single township for a year, the results would be so gratifying that their use would immediately become quite general. In sections where roads traverse clay lands and where they are so often very badly rutted, the wide tires would be a benediction. They would accomplish more good than the road machines, though we rate the machines highly. A road cannot well be rutted with wide-tire wagons, no matter how heavy the loads that are put upon them—on the contrary, they will obliterate ruts and give a smooth road-bed if nothing else. The best thing we can do is to work for a general State law, such as now applies to many counties, liberally reducing the road tax of those who use wide tires.

I have noticed also in your paper many complaints as to the scarcity of cows and sheep in North Carolina. Horses are also by no means abundant. Start in now with energy to breed and improve your horses up to the highest market standard. Get good draft mares to do the farm work and breed them to the very best draft stallion to be had, regardless of price, for before the colts are matured, horses will be so high that service fees will not be considered. Raise and mature all the good colts that the farm will accommodate, and if they are good heavy draft horses when matured, you can set your own price. These draft mares make good farm teams and raise a valuable colt every year.

W. E. S.  
Pitt Co., N. C.

Have your stable stalls as nearly on a level as possible.

### THE FARMER'S TIME OF LEISURE.

Some Suggestions as to the Best Way to Spend It and a General View of the Farmer's Prospects—Some Things all Should Work for.

Correspondence of The Progressive Farmer.

Farmers are now laying by their crops and soon we shall have a season of comparative leisure. The question is, How best can we use our time from now till mid-September or the first of October? Of course we shall want to sow some clover; many of us ought to put in heavier turnip and rutabaga crops than usual; those who have not done so should make a test of rape on good land, while silos would pay on ten times as many farms as now have them. Yet with these things done and leaving time for occasional pleasure-seeking days, we will still have many leisure hours.

I wish to discuss this question through your columns, especially as I see you are so cordially inviting farmers to discuss any and all farming problems in your paper, and are still looking steadfastly after the farmers' interests and making a new independent farm and family paper, without engaging in any of the bitterness and narrowness of partisan politics.

In my opinion, brother farmers, the best use we can make of our time from the laying-by period till the harvesting season is to devote it to study. Let us work with our heads and minds a month or two and see if it does not pay just as well as the same time devoted to muscular work. Edmund Burke used to say that brains were needed worse on the farm than anywhere. A true saying this was, though not in harmony with general beliefs. Let us, of course, study the political end and see that good men and men who have our interests at heart are placed in all government positions. But let us not blame the government for everything that goes wrong. Let us see what we can do for ourselves.

Quite often the politicians tell us that the cause of our trouble is overproduction, and in the next breath tell us it's laziness. Now I don't pin much faith to the average politician, for I try to keep posted as to their acts and their records and vote for the one that I consider most solid. Yet I don't know but that the trouble is really overproduction and laziness—an overproduction of crops that must be sold as raw material, and mental, though not physical, laziness.

We've got to get down to studying our business and laying plans, just as the banker or merchant studies his work and plans.

We must pull together and learn by the mistakes of others. After the election is over we ought to have farmers' meetings in every township in North Carolina and lay plans for a general betterment of agriculture, "mentally, morally, socially and financially." But we need something more than spasmodic meetings now and then; we need a general organization to teach the principles of fellowship, co-operation and progressiveness. Since the Alliance is now upon these original principles, with a State leadership comprising some of the most influential and trusted farmers of the State of all religious and political creeds, it seems to be the only organization that fills the bill.

With such sterling Democrats as President Graham and Secretary Parker, and such influential Populists as Lecturer Seawell and Prof. Graham of the Executive Committee, leading the organization, the absurdity of the charge of partisanship is seen at a glance, and the writer, who has never voted a straight party ticket, hopes to see the Order re-organized all over the State.

There are many fields of usefulness open to an organization such as the Alliance that have never been entered in this State. It must teach the doctrine of education and co-operation. The young people on the farm and the farmers' wives must have more attention than they have yet had. Greater efforts must be put forth to encourage healthy rivalry in agricultural progress between different members of a local

organization and between the organizations. Every member must be brought in touch with the Order, its aims and spirit. A library, commencing with the standard works on agriculture and allied subjects and growing as the surplus funds warrant, must be started in every local organization. The social features should be promoted, and greater attention given to charitable work among afflicted brethren. Politicians must be kept under subjection as they are at this time. But of this subject, more anon.

I do not think, Mr. Editor, that many readers of your paper can make a better investment than by sending you \$1.25 for a copy of Prof. Bailey's "Principles of Agriculture." It is the very best work of its kind I ever read. The Progressive Farmer will be of twice as much interest and value to the average farmer, after he has read the book. I hope a thousand farmers will secure copies and read it during the summer.

In conclusion, let me urge upon my fellow-farmers to work for the objects which the editor of The Progressive Farmer has already declared should be among the paramount aims of every farmer or good citizen—good roads everywhere, a good school in every school district, and a good fair and instructive newspaper in every family. When we get these, all things shall work together for good to North Carolina and North Carolina agriculture.

AGRICOLA.

Alamance Co., N. C.

### SOME CATCH CROPS.

Correspondence of The Progressive Farmer.

Where one is located reasonably near good town or city markets the catch crops can often be made to pay for the whole cost of planting and harvesting the main crops. Even if one cannot sell the catch crops, a part or all of them can be utilized at home. There is nothing better for family use than lettuce, radishes, peas and early onions. Then beside catch crops can be raised for the farm animals in such a way that considerable food of more value can be saved. It should be understood, furthermore, that catch crops invariably help the main crops because when we weed them out the process mellowes the soil and gives the roots of the main crops a better chance to suck up moisture from below. It is far better to plant catch crops between the rows of garden and field plants than to let the space be taken up with weeds, which is invariably the case when farm work is pressing.

Between the rows of strawberries, lettuce, peas and onions can be drilled without any injury to the strawberry plants, and if properly attended to they help the strawberries in their growth. The lettuce seed can be put in the soil just as soon as the season is warm enough, and the crop of lettuce will be ready for harvesting before most others have gathered their greens. Early lettuce is a valuable crop and brings good profits, and when drilled in the strawberry rows the plants grow rapidly because of the richness of the soil. The plants need to be thinned out early, and the very small heads can be marketed first, and the larger heads be allowed to develop until strawberry time. Then they can be cut out and sent to market with the berries. One simply kills two birds with one stone in this way. Dwarf early peas should be used in between the strawberry rows, if any; they will not shade the ground too much to affect the berries. When new strawberry beds are put out, this method of securing a catch crop while waiting for the plants to mature is profitable and satisfactory. Radishes make another excellent catch crop and they can be planted between the rows of almost any slow-growing crop, and if harvested early they will leave the soil in fine tilth for the main crop. When sowing onion or turnip seed a catch crop of either radishes or lettuce is good, and the returns from the plants should be sufficient to pay for the time, labor and cost of seed for the onion or turnip crop. In planting catch crops the soil should be made rich and fertile beforehand, and if this is not done there is not much danger of the double crop exhausting it in any way. W. E. FARMER.

### SOME FERTILIZER FACTS.

For several years, The Progressive Farmer has been regularly preaching the doctrine of home-mixed fertilizers. Numbers of our readers have followed our advice and report remarkably satisfactory results. Every experiment station that has ever investigated the subject and compared cost of ready-prepared goods with home-mixed show the immense advantages and economy of the latter. We notice that the Vermont Experiment Station has just finished and published its report on the yearly inspection of fertilizers. It has analyzed 132 brands, the output of nineteen companies, all drawn from dealers' stocks, all this year's goods.

The average selling price of the fertilizers approximated \$28.73, and the average valuation, \$18.08. Two dollars in every five paid for fertilizers met the cost of manufacture and sale—money that could have been kept on the farm by intelligent home-mixing. An amount of plant food which cost a dollar, might have been bought at retail for cash at the seaboard for 58 cents in average low-priced goods, for 63 cents in average medium grade brands, and for 68 cents in average high-priced goods. In nearly one-fourth of the entire number of brands, a dollar was charged for amounts of plant food which might have been bought at retail in the larger markets for 55 cents or less. "Cheap fertilizers" are usually the most expensive.

Fertilizer prices have not advanced in Vermont during the past twelve months as they have in North Carolina.

The disappearance of the birds has become a matter of serious concern to the farmer. The curculio and other destructive insects have their sweet will in his orchard, and all insects detrimental to plant life are increasing in number because of this cruel, wanton and vicious destruction of bird life.—Amos Cummings.

### SECOND CROP IRISH POTATOES.

Correspondence of The Progressive Farmer.

Seeing a query in the last issue of The Progressive Farmer in regard to the planting of a fall or second crop of Irish potatoes, I write to give the practical experience of one who has helped do the work with his own hands and done the planning for the balance and never made a failure.

The most important thing is the seed. To insure success they should be put in ventilated barrels and set away in some old out house or barn where they can have plenty of ventilation and should not be planted earlier here than the 20th of August. Thoroughly prepare the land by proper plowing and harrowing. I prefer to flat-break the land and lay off rows 3½ feet apart.

Put in a liberal quantity of fertilizer, not less than you would for a spring crop, if you care to raise a paying crop. Bed up the land with four furrows with a plow that does not throw too much so as not to have the row too high, and when ready to plant run a harrow on top of the row so as to drag it down some and put the land in fine condition. Then open a light furrow and drop the cut potatoes 8 inches apart in the drill and cover with two light furrows with a truck mould-board that comes with almost any of the improved turning plows now on the market.

I always wait till I get the weather to suit me if I have to wait till the 1st of September. I want a cool cloudy day and cut and plant and cover just as fast as I can, not leaving them cut but a few minutes before they are dropped, or dropped but a few minutes before I cover them up.

R. H. LANE.  
Beaufort Co., N. C.

Farming is like any other business; it must be conducted upon business principles and pushed and worked up the highest point of profit. The up-to-date farmer is more intellectual than many men in other professions; he has to be educated and has to have thinking, active brains to succeed in these times of close competition.—A. J. Van Orden.