

## Correspondence.

## THAT NUMEROUS DEPARTMENT.

What 'Squire Wiggins Saw at the Experiment Farm and What He Thought about It, with some Practical Remarks by "Straightout."

BLUE'S GULLY, N. C.

EDITOR PROGRESSIVE FARMER:—The sub-department of the Experiment Farm greatly interests us in these parts and many of us made up our minds that the next time we went up to sell a load of rabbits and hens too old to lay, we would run and see it. At this time old hens are selling well in Raleigh. The hotels and boarding houses are wild to get them, now that the legislature is in session, and pay thirty-five cents for them by the load. The reason for this is that a good old hen will last two days and be good for hash the next morning. One day they make soup out of her and cut her to pieces and try to eat her. Then the pieces are gathered up and stewed for next day's dinner and all that is left is hashed for next morning's breakfast. Old hens sell well in Raleigh, better than rabbits, just at this time, though rabbit is a standard dish with some folks up there.

But I set out to say that 'Squire Wiggins went up to Raleigh to the fair and while there he stepped over to the Experiment Farm. If what he tells is true the thing has the right name. He says that he saw two or three fine houses up on a hill and the foundation for a barn and that from what he saw it will be many years before they need a barn larger than his wife's old hair trunk her mother gave her fifty years ago when he and she got married. He says he saw about an acre of tobacco that was little higher than his hand and so thin that it was blowing away, and he gives it as his opinion that if there is a farmer in North Carolina who cannot make a better crop of tobacco on any piece of land on his farm he had better sell out at once and go into an insurance agency or sell sewing machines. According to his report they have over there two good mules and a fine horse and unlimited manure and guano, and that the horse spends his time carrying the officers and delivering the orders, while the two mules are employed in hauling the things ordered of the commission merchants. They could plough the entire crop on the farm in an hour. But he saw the farmer in charge, a German from New York, who had never in his life before coming down here seen a stalk of cotton or tobacco and who did not know a tobacco seed from a cotton seed. This farmer showed 'Squire Wiggins his crop of cotton and tobacco in bottles. He had a long box with one side on hinges and in this box he had a row of bottles filled with water and liquid manure and in each bottle was a tusk of cotton or tobacco. His object, he said, was to see how many "millegrams" a root of each would grow in a day. This was wonderful, as the roots of the poor sickly plants were coiled up in the water and looked mighty white and clean. Then he showed him a little black thing sticking out of the ground and pointing South. This he said was an instrument by which he could tell every day how hard the sun's rays hit the earth. Of all things 'Squire Wiggins saw, this black instrument seems to have impressed him most and he now thinks that the reason his cotton and tobacco turn yellow in hot weather is not so much for want of rain as it is from being punctured and cut into millions of fine holes by the rays of the sun. He says that he saw one of the assistants with two or three other men helping him, engaged in weighing a stalk of cotton to see how many millionths grains it had gained in twenty four hours. This was a big job and required much learning, labor and attention. They pulled off every leaf and weighed it separately then cut every twig root and branch and then the stalk. 'Squire Wiggins says they are learned men and talked about "properties and elements" he never heard of but that he did not see what use all this was to the farmers of North Carolina nor how they were to be profited by it. He gives it as his opinion that the Experiment Farm should be a place where every farmer could go and learn exactly how to plant a crop of anything he wishes to raise and the best way to work it, etc. In his opinion there is not a man connected with the Department of Agri-

culture, either as commissioner or clerk, who could for his life tell him when to sow turnips or the best time to plant Irish potatoes, unless he first asked the old gentleman who keeps the fair ground.

The Department ought to be managed by a practical farmer and one who was bred on a farm in North Carolina and worked on a farm in North Carolina. New England nor New York nor German farming can be successfully done in this State.

The great want of the farmers in North Carolina is not to know exactly how hard a particle of sun's light hits him or how many thousandths parts of an inch is formed or made in the growth of his crops, but how to make his own supplies and get rid of the mortgage on his farm. At this writing only one family in Blue's Gully can be found which has a quart of beans or peas, and from present prospects there will not be a peck of turnip salad gathered in these parts during March and April, when turnip salad is so good and so useful.

These things are easily made and are a great help in making out through the winter but by some means our people never think of peas, beans or turnip salad until they need them and then it is forever too late to plant them. I sometimes wish the commissioner would come down this way at the right time to plant peas and tell our people how and when.

In my next I will tell your readers why I never gave a mortgage on my crop and how I learned to keep in peas, beans and potatoes.

STRAIGHTOUT.

## THE CATTLE OF AYRSHIRE.

The Ayrshires are to us exceedingly attractive on account of their broken color, the white spots and flecks contrasting beautifully with dark red or brown of the body color, the color, as a rule, being intensified along the edges of the white, and yet, strange to say, there is a craze for solid colors among breeders.

The breed is well adapted to make the most of short commons of the best of abundance—hardy, active, prolific, going all to milk when milking, and piling on flesh when dry—a breed every farmer and dairyman who owns one is proud of, filling the eye and filling the pail. The milk is of medium quality and abundant, making up in flow what it lacks in quality when compared with the special butter breeds; always rich in solids, hence admirable for cheese production. Were we to name a breed of cattle which would produce the greatest profit from a given area of farming or grazing land, or turn 100 tons of hay, fodder and corn meal into the greatest profit, we should hesitate to name one which would surpass the Ayrshire, even where the breed would have no opportunity to exhibit its hardness and activity. But, on short pasture, in cold stables, exposed to more or less hardships, the Ayrshires would almost surely carry off the palm.

There is one thing about them that is very satisfactory: they are always recognizable even as grades. The breed has an unmistakable strikingly handsome style of its own. An Ayrshire is an Ayrshire, and never will be mistaken for anything else.—*American Agriculturist for January.*

## ALFALFA.

The experiment of growing alfalfa or California clover in the western portion of Kansas, by farmers and stockmen has been with most flattering results. They have met with such excellent success that others are induced to seed down large tracts of land with this valuable hay and feed-producing range plant. The yield of alfalfa is enormous, as much as eight or ten tons per acre, which on good soil, such as will produce corn, can be cut four times a year.

If cut for hay, it should be cut just before it turns to seed or while in bloom. It may be cut twice for hay each year and the third time for seed. Alfalfa may be grazed until late in the fall and winter, then again in the spring, and still make a fair seed crop. The roots of this plant go down deep in the soil, a depth of ten or fifteen feet, and in some instances have been known to go even deeper, to a depth where, as a rule, it would strike water.—*Breeder's Journal.*

—A New England experimenter finds that feeding apples to milch cows has the invariable effect of lessening the flow of milk.

## Farm Notes.

## SALTING FROZEN MEAT.

In packing beef or pork at this season it is important to have all frost out of it, or no amount of salt will keep it from spoiling. While frozen the meat is expanded, which opens it to the air, and the oxygen thus admitted speedily causes fermentation and souring.

## CORNSTALKS DRYING OUT.

It is always advisable to feed cornstalks in the early part of the Winter, reserving hay till near the Spring. Repeated freezing and thawing dry out the sap, and with this destroy much of their value for feeding. The exception to this is where the stalks are finely cut early in the season and left in large heaps. Some fermentation, such as would occur in a silo well weighted down, is no disadvantage, but rather a benefit, as it keeps the stalks moist and palatable.

## TOO MANY HORSES.

One of the evils on relying on old, worn-out horses to do the farm work is that the farmer who does so is sure to be overstocked. The exigencies of Summer labor require extra team help, and now the stables are filled with horses, eating their heads off with little or nothing to do. It is true these superannuated animals, if mares, are apt to be set to breeding, but there is little profit in this unless the dam is of good stock and not defective in any way likely to injure her progeny.

## PIGS STUNTED IN WINTER.

Late Fall pigs are hard to keep in good growing condition through cold weather. They need some corn to keep them warm, but their digestive organs are not yet strong enough to bear as heavy feeding as may be needed for this purpose. If stunted now, half the summer will be wasted in getting them fairly to growing again. One of the chief troubles with pig raising in Winter is the scarcity of milk. This can be partly remedied by feeding wheat middings and oatmeal.

## POTATOES AFTER CORN.

It is common where potatoes are grown in large quantities to plant them on newly turned sod. But if this be clover, and heavily manured, it is apt to make the potatoes scabby or rotten or both. If the fresh manure on sod is used the first season for growing corn, the grain crop will benefit more from both than potatoes could do, and both will be in excellent condition for growing a superior quality of tubers. If more green manure is needed, it can be had by sowing rye among the corn just before harvesting it.

## MANURES FOR THE GARDEN.

Farmers' gardens are generally fertilized more heavily than any other part of the farm; but almost always with stable or barn yard manure. This as it runs is not a complete fertilizer, and its weak point is generally a deficiency of phosphoric acid, and on sandy soils potash. Market gardeners, who use heavier dressings of manure than farmers would think of applying, find it profitable to change occasionally, applying perhaps in one year ten to twelve hundred weight of phosphate of lime to a single crop. The alternation of manures is found to be quite as important as rotation of crops, which is found so essential in farm practice.

## CUTTING ROOTS FOR STOCK.

To cut roots for stock conveniently a machine for the purpose, which slices them, is much the best. They can be cut by chopping with a spade or shovel; but this is slow work, and there is liability of making square chunks, which cows in their greediness may attempt to swallow without chewing and thus choke themselves. Only ruminant animals are liable to choke with roots, as all others are obliged to chew before swallowing their food. Turnips for sheep are not cut at all in England, the common practice being to turn the sheep in the field and allow them to harvest it. They will gnaw out the interior of a large turnip, leaving only the pungent outside shell.

## PRUNING THE GRAPE VINE.

Any open weather in Winter when outdoor work can be done comfortably is the best time to prune the grape vine. The earlier it is done the better, not only to get rid of surplus wood, but for the purpose of dropping the vine on the ground for

the protection against cold. If left until Spring before being pruned, the sap will start, and there will be some loss of vitality which should be directed to fruitfulness. There is strong temptation in pruning to leave too much wood. By remembering that every bud will another season develop into a branch with two or more bunches of grapes, the tendency to leave on the vine an excess of buds will be overcome.

## FREEZING DRY SOILS.

One of the good effects of underdraining is that it increases the depth to which the frost penetrates the soil, thus graciously making deeper the space in which plant roots may penetrate the soil in search of food and moisture. This is a strong argument in favor of making deep drains, especially on level exposed surfaces where the snow is liable to blow off. No tile is absolutely safe from frost in the Northern States at a less depth than three feet, though a slight touch of frost at this stage might do no harm. Drains made twenty inches or two feet deep are often disarranged from freezing, but for the fact that they are often in hollows where they are protected from snow, a still larger percentage of them would be spoiled. We cannot tell by digging in undrained ground how deeply frost will penetrate after the draining produces its full effects. For a number of years after a drain is made the frost reaches a lower level in winters equally as cold. Dry sand sometimes freezes to a depth of three or even four feet in exposed banks. It is not possible to get a clay soil so dry as sand and this freezing makes a solid barrier of ice, through which cold air cannot penetrate. In a clay soil, unless directly over a drain, there is seldom much frost below six or eight inches from the surface, and on a sod even less than this. Hence the great benefit of fall plowing such soils to make them deeper, but this must be combined with thorough underdraining to make the advantage permanent.

## EFFECT OF CLOVER ON SOIL.

The *Farm* has this to say in relation to the effects of manuring with clover:

One of the most remarkable studies in practical farming is the wonderful recuperative and restorative effects of clover on land. This effect can hardly be exaggerated. It is a mystery to many farmers how a crop grown on a soil can improve it more than it takes from it. Perhaps it will help them to understand this to remind them that but a small portion of the plant comes from the soil. In a ton of clover hay chemists tell us there are but from 106 to 134 pounds of organic matter (by which they mean that which has come from the soil) and all the remainder is inorganic or matter that has come from the atmosphere. Another fact which helps to explain how green manuring helps the soil is that in most soils there is enough of plant food to grow hundreds of crops (and often thousands), and much of this is in a condition in which it is not readily available for the plant. One of our best modern writers on agricultural chemistry says: "So great is the wealth of fertility stored in the soil that if the nitrogen, phosphoric acid and potash contained in the upper twelve inches of a good soil were valued at the prices charged for them in our commercial fertilizers, a farm of 160 acres would be worth about a half million dollars."

This must be constantly borne in mind: The question we are about solve in cultivating our farms is to not, when will the soil become completely exhausted, but how can we manage it so as to get profitable crops at the least expense now? Prof. Roberts of the New York Experiment Station found that a field of clover which yielded 3,295 pounds of cured hay had 4,982 pounds of dried roots or nearly 1,700 pounds more of roots than of top.

—For cramp in the feet, press the hollow of the foot against something hard and round; a broom handle is the best thing.

—An aid in making button holes in a garment which frays badly is to take a piece of glue that has a smooth and rather thick edge, dip it slightly in hot water and pass lightly over the goods before cutting the button holes. The result will be satisfactory.

## EFFECT OF MANURE ON SOILS.

The effect of manure on soils is various. Long manure on sandy soils tends to make the land still more dry, and hence should only be applied to this kind of soil in a thoroughly rotted condition, or better as a compost. What sandy soil lacks, as a rule, is humus, and compost or thoroughly rotted manure is in just the condition to kindly perform this office.

Many persons, perhaps a majority, suppose that manures leach down through sandy soils and are lost. If the soil is nearly a clear sand this effect will take place if some crop is not grown thereon. But crops on sandy soils, in the presence of manure, eat out manure very fast, and hence this apparent disappearance of manure is accounted for. It goes quickly into the crop if in a soluble state. Loams and clays, on the contrary, take up and hold manure indefinitely if not accepted by crops. If occupied by crops it is given up, but all the constituents of plant growth being present, the eating out of manure is not so quickly seen.

The reason why manure is more quickly eaten out of sandy soils is that they are more porous than clay soils, and hence more amenable to the action of the oxygen of the air, and this action of oxygen upon any material liable to decay is what reduces such material to a state by which it may be taken up by plants. Hence, if the soil is clayey, long undigested manure will be indicated. It tends to render such soils more light and porous. On sandy soils every means possible should be used to render the soil as compact as possible, while the naturally firm clay soils require the greatest possible disintegration to render them the most productive. Yet there should always be a due relation to compactness in any soil to reach the best results.—*Farm, Field and Stockman.*

## COMPOST HEAPS.

Every place large enough to have a garden should also have a compost heap. This may be made with little cost and labor to the farmer by putting into it all the animal and vegetable substances that otherwise would go to waste and in many cases poison the air and render it unhealthy. The provident farmer looks everywhere for material for the compost heap and collects it from filthy places, such as drains, cess-pools, ditches, bogs, ponds and the like. This matter, along with the scraping of cellars, earth under barns, etc., collected together and covered with clay or loam, become harmless and at the same time valuable. Make the compost at a distance from well and cistern and as far from the dwelling house as may be. Beneath every heap that is built up see that there is an abundance of clay or loam sufficient to absorb all the soluble substance that drains from the heap to prevent the moisture from sinking into the earth. With every addition to the heap place a layer on top of loam or other material to prevent the evaporation of gases from the pile. In this heap should be put all yard sweepings, suds from the laundry, turf, leaves and ashes.—*Exchange.*

## SELECTING BROOD SOWS.

This is an important selection and unless done understandingly will result in disappointment and a condemnation of the breed. A brood sow should have good length, in fact longer than boar she is bred to. She should have large heart measurement, a good loin and the lower down the ham runs the better. Don't condemn her because her back is not straight as a line, would much rather her back was arched than swayed. I would much rather have a September or October pig to breed from than a spring pig as she can be bred the following year in the fall and farrow at about sixteen months old and that is early enough for a sow to have her first litter, after that she can be bred twice a year. Don't select a sow pig because she shows up well and scored high at the fair. Examine her breeding, see that she runs through a long line of good families. If she be a grade ascertain the predominating blood and breed her to a boar of that breed so that you may go forward instead of backward. As to the breed I suppose some breeders would say by all means use a Poland-China while I would say a Berkshire.—*W. F. Clements in the Swineherd.*