

ly in the growth of the animal, as well as have a tendency to keep him in such a condition that when "fattening time" arrives he will be ready for the knife much sooner than a hog fed only on slops without the daily quota of corn, to say nothing of the saving of a good deal more corn than has been used up to this time in the feeding. The milk from the dairy, when weakened by the slops from the kitchen, should occasionally through the week be enriched by the addition of rye bran.

Sty and Bedding.—The pen in which hogs are kept should consist of two apartments—a covered and an uncovered one. An excellent manner in which to construct a pig-sty, is to erect a two story frame building, having a part of the under story boarded off for a place in which to keep the slop barrel, reserving the rest for a dry pen for the hogs, and have a pen constructed outside, and communicating with this covered one. The feeding trough should be in the outside pen. In this manner, if the pigs are given a sufficiency of rye straw in the inside pen, and the outside one is kept well supplied with the butts of corn stalks, they will not only make an immense amount of manure, but will keep themselves white and clean, thus refuting the assertion of the filthiness which is continually flung at them. In the upper part of this pen should be kept litter for the bedding of these hogs; or a part of it may be partitioned off for a henery.

I have adopted what I consider a very good as well as an economical plan of getting the upper part of my hog building filled with good littering material. It is this: When hauling in my corn fodder I cut off about two feet of the hard dry butts, which the cattle cannot eat, and leave them bound into small bundles and stowed away in the upper portion of the hog house, to be used as required. These corn butts when thrown into the outside pen are so torn and trampled up that they are converted into good lasting manure, which has not its superior on the farm, and which would be almost entirely lost if fed to the cattle in the fields, etc.

Fattening.—When fattening time comes, I generally commence by feeding them the "nubbins," and after two or three weeks, follow them with shelled corn. This I always feed boiled, boiling in the morning what is required during the day, and at night what is necessary for the morning. Feeding thus, brings my work nearly all in daylight. In this way I can make my hogs fat enough for all practical purposes, by feeding them from fifteen to twenty bushels of corn, each, and in slaughtering at sixteen months old, they weigh from four to five hundred pounds. I never like them to exceed the latter figure in weight, for I have no fancy for this overgrown and spongy pork of forced hogs.

One plant of the wild parsnip (*Pastinaca sativa*) gives the same as the above.

Cultivating Mixed Varieties of Wheat.

Selected samples of distinct varieties of wheat are now generally cultivated in Scotland. It may be questioned however, if the practice has much to recommend it beyond securing a pure variety for sale or for re-sowing. At one time the wheat usually grown was a mixture of a number of varieties of white wheats, including velvet-eared, and occasionally bearded heads. They are districts in England and on the Continent, where a mixture is still preferred. In some instances in England, red and white wheats are grown mixed, from the belief that the produce of grain is on the whole more uniform, and larger, and the sample brings a higher price in the market, than when either the white or the red variety are grown separately. This is the general result in those localities where the wheat crop is liable to become affected with mildew. With more attention to the cultivation of wheat in Scotland, selection has been carried out, and the greater portion of the wheats in cultivation are true to their kinds. It is therefore important to ascertain whether by cultivating genuine or unmixed varieties, the produce per acre is not impaired, and as a consequence the money return less, than when a mixture of varieties are grown. Several eminent physiologists state that a mixture of kinds of any of the seed-producing plants usually yield a larger amount of seeds; and this opinion is very general among farmers where the growing of mixtures of the cereals and leguminous plants are carried out. It is supposed physiologists that the different varieties spread their roots at different depths in the soil, and thus draw a larger amount of the constituents of plant life from the soil. Perhaps something is due to the difference of produce in the different varieties arising from the character of the season, climate, and soil. There are several recorded experiments which support this belief, but more experiments are required to elucidate the question.—*North British Agriculturist.*

The Atmosphere and the Soil

BY CUTHBERT W. JOHNSON, ESQ., F. R. S.

While the rain pours down upon our fields, of late, in unusual quantities, our attention comes more directed to the effect it produces on the soil, and to the good results of drainage. We have, indeed, more than one reason for cultivating such trains of thought: we are everwarded, in these studies, by not only the interesting knowledge we acquire, but by the profitable answers which nature so often returns to our inquiries.

It may, then, be practically useful, if in a wet season, we commune together a little upon these things—if we glance at the origin of copious rainfalls, and consider how much dist