

size attain no great weight. They are small in limb, round in body, short in the head, wide in the cheek, and high in the chine; covered with very fine bristles growing from an exceedingly thin skin; and not peculiarly symmetrical, for, when fat, the head is so buried in the neck, that little more than the tip of the snout is visible. The pure Chinese hog is too delicate and susceptible of cold ever to become a really profitable animal in this country; it is difficult to rear, and the sows are not good nurses; but one or two judicious crosses have in a manner neutralized it.

This breed will fatten readily, and on a comparatively small quantity of food; and the flesh is exceedingly delicate, but does not make good bacon, and is often too fat and oily to be generally esteemed as pork. They are chiefly kept by those who rear sucking-pigs for the market, as they make excellent roasters at three weeks or a month old. Some authors point out five, some seven varieties of the Chinese breed, but these are doubtless the results of different crosses with our native kinds; among these are black, white, black and white, spotted, and blue and white, or sandy.—Many valuable crosses have been made with these animals; for the prevalent fault of the old English breeds having been coarseness of flesh, unwieldiness of form, and want of aptitude to fatten, an admixture of the Chinese breed has materially corrected these defects. Most of our smaller breeds are more or less indebted to the Asiatic swine for their present compactness of form, the readiness with which they fatten on a small quantity of food, and their early maturity; but these advantages are not considered by some persons as sufficiently great to compensate for the diminution in size, the increased delicacy of the animals, and the decrease of the number in the litters. The best cross is between the Berkshire and the Chinese.

We have been presented with a pair of improved Berkshires, from the pair to which was awarded the first prize at the New York State Fair held at Elmira. If they prove valuable, we shall be able to spare samples for breeding purposes in a few months.—*Canadian Agriculturist*.

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#### CAN LAND BE MADE FERTILE WITHOUT STABLE MANURE?

Mr. Editor:—I wish to improve a piece of high land which is pretty much run out. The soil is of a light, loamy character, plentifully supplied with boulders, sub-soil much the same, except difference in color; lays to the south-east, and with liberal culture gives good crops of corn.

I wish to know if I can avoid the expense of stable manure, which is here worth \$7,50 per cord? (a.)

I have any quantity of meadow muck for the hauling, which will cost 25 or 30 cents per ox load; can this be used with ashes at \$12 per cord, to advantage, and would it prove a substitute for stable manure; if so,

in what proportion should the muck and ashes be used? (b.)

Will muck thrown out in January, be fit for use next spring? (c.)

Should the muck lie in a heap this winter, or would it be better to spread it on a plowed piece and sow the ashes on in the spring and plow all in together? (d.)

Would coal ashes for the hauling one mile, be as good and cheap for this purpose as leached wood ashes, at \$12 a cord delivered? (e.)—*Reading, Mass, 1857.*

W. SPEAR.

REMARKS.—Lands may be made fertile without the aid of stable manure, but the question to be settled is, whether they can be made so *at a profit*. Many persons can make two blades of grass grow where only one grew before, but the operation is quite similar to those in commerce or manufactures, where losses are incurred; although they increase the object sought for, yet it is at so costly a rate that to persist in it would inevitably lead to failure and starvation. Whatever we cultivate must be done at a profit, perhaps not always in the first year, any more than that the manufacturer should find a profit on his outlays of buildings and machinery the first year. If we fell the forest, drain and remove rocks from a piece of land, it would be unreasonable to expect a full return from the first crop.

After land has been reclaimed, cultivated and exhausted, it presents another attitude; the question now will depend upon the kind of land to be wrought, and its location. If light land, such as many of our plains, that may be plowed rapidly with one or two horses, so that there shall not be much tax for travel, it may be cultivated *at a profit*, without adding stable manure. This may be done by sowing with rye, thrashing in the field, reserving the berry and returning the straw at once to the soil by plowing it under; or by plowing under two or three crops of buckwheat when in bloom. By this mode you extract valuable matter from the atmosphere and mingle it with the soil, and by continuing the process very lean and hungry lands may be made prolific *at a profit*! When once brought up they may be easily kept so.

In some such way, we think the piece of land in question may be redeemed and made to pay as it goes. But whether it would be the *most profitable* course, taken in connection with other lands of the farm, we cannot judge.

(a.) See reply to (b.)

(b.) If ten cords of good meadow muck, having been frozen through one winter, finely pulverized, and each cord thoroughly mingled with ten bushels of ashes, where spread upon a plowed acre of your field and then worked in with a cultivator, the corn planted, all weeds and grass kept down, and the ground frequently stirred, whether there were weeds or not, we think you would get, in a favorable season, 30 or 35 bushels of corn. At the average price of northern corn, that

would pay well for all the expenses. This being the case, you could afford to leave all the fodder on the ground, and as soon as the ears were gathered, cut up the stalks, and as the plow advances let a hand follow and lay them lengthwise in the furrow to be entirely covered up the next time the plow comes round. Here you have quite a liberal manuring of prime vegetable matter. The next year, if the land is of a sandy quality, apply the same amount of muck and ashes again; but if not quite sandy, add what the muck would cost in wet bone dust, and work it in with the harrow.

We have found great benefit, by a process similar to this, on much such land as you describe.

(c. d.) Muck thrown out in autumn should not be in heaps so large as to prevent its freezing solid. When the ashes are mingled with it all lumps should be broken and thrown out.

(e.) We think not—the value of coal ashes, however, has not been satisfactorily tested.

Will you experiment upon these suggestions, and give us the result, especially as regards the coal ashes, tried by the side of the leached wood ashes, all other things being equal?—*N. E. Farmer*.

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MAPLE SUGAR.—By the census of 1850 the total product of maple sugar in the United States was 34,253,436 pounds, valued at \$1,712,671—more than one-twelfth the value of the cane sugar product. This valuation, however, is at the rate of five cents a pound, which is only about one-half the average market price. The quantity of molasses manufactured is also very considerable. The two large maple growing States are New York and Vermont, which produced upwards of ten and a quarter and six and a quarter million pounds respectively. The next largest are Ohio, Indiana, Michigan, Pennsylvania, and Virginia. All the States, with the exception of Delaware, Florida, Mississippi, and Texas, are producers to a greater or less extent.

From present indications, the quantity of maple sugar and molasses made this year will be greater than ever before. The high price of sugar, of all grades, have stimulated its manufacture, and there seems to be a fair prospect that the product, this year, will be upwards of fifty millions pounds. At present prices (12 cents a pound and \$1 a gallon) the product will be worth not less than \$7,000,000.

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RHUBARB, OR PIE PLANT.—Rhubarb may be brought forward very early in spring, in several ways. It is the practice of some to place an old barrel or box (with the bottom