cessary in the common way of husbandry, ate up so much of the profits, that it did not answer. This gentleman I did not see; but his son lives with this Lord, and from him I had the following directions:

If wheat land be out of order, by being foul, or run out, begin to fallow it at Christmas, and again in March. Be sure you plough the second time the same way as at first, because by that means you'll probably break some hard lumps that may have remained after the first ploughing. But the third time it may be cross ploughed, which will certainly mellow the ground. If you can plough it a fourth and a fifth time, it will do the ground more good than if you dunged it. And by this method he thinks his dung rather an encumbrance than of use for corn; because it brings up weeds, which take away the nourishment the corn should get. The earlier the wheat is sown the better. Wheat must be sown with a drill, which is a machine which holds the corn to be sown in a box. There are three holes, which open by a spring as the drill turns on an axletree, which lets the corn fall in three rows about a foot apart.

There is a little thing like a plough, no greater than a large pruning knife, which cuts the ground at a certain deepness before the hole that drops the corn; and a little harrow fixed to the machine, that closes the ground upon the corn after it is sown. This is the only harrowing it must get; because the common harrows bury a great deal of the corn so deep that it never comes up. When you come to the end of the field you must turn the drill, and leave a space of about five feet betwixt these three rows of corn and the next, and so on. The five feet space that is left betwixt the rows of corn is to be ploughed with a hoe-plough as often as you can, the oftener the better, though even six or seven times; and that interval is to be kept in ploughing both to destroy the weeds and mellow the ground. Besides, the keeping the ground moved, makes the corn grow the better, and in greater quantity, and the straw stronger than the common way. I saw a proof of this —for the two sides of Lord Ducie's corn were both taller and better coloured than the middle row, where the ground was not loosened. And to mend this, they have sown the rows at a foot distance, whereas they were formerly at six inches; because you may pull up the weeds, and stir the ground with a hand hoe betwixt the rows, The drill is drawn with one horse, a boy to lead him and a man to follow it, who lifts the drill quite up from the ground when he turns at the end of the field; and the lifting stops the corn from falling out till the wheels it runs upon are set agoing again. The hoe-plow must have two horses, a man to hold it, and a boy to lead them. They sometimes use oxen to the hoe-plough, or more horses if the ground is strong; but whatever draws must be muzzled, for eating the corn. By this drill you only sow half a bushel to the acre, which is a great deal of seed saved. If it is dry weather, and the fallow-ground not broke enough betwixt the rows of the corn, you may harrow and roll it. By this method you have a greater crop upon an acre than in the common way, though the ground is dunged. And next year you manage the same ground after the same way; and sow it again with wheat only; the corn must be sown where the interval was the year before; and the place where the corn is to be sown should be raised into a little ridge, to be all winter. They have had four years' experience of this way, wheat after wheat, and it grows always the longer the better.

I objected that the ploughing so much would be a vast expense. He said, that it did more than answer. And now I say to you, try it, and you'll know whether it is so or not, for I do not know.

On the Production of the Sexes among Sheep.

[Abridged from the *Journal d' Agriculture Pratique*, as translated in the *Mark Lane Express.*]

The general law which Giron de Bazareingues has recognized on the subject of the procreation of the sexes is as follows:—The sex of the product would depend on the greater or less relative vigour of the individuals coupled. In many experiments purposely made, he has obtained from the ewes more males than females, by coupling very strong rams with ewes either too young or too aged, or badly fed; and more females than males by an inverse action in the choice of the ewes and rams he put together.

But the following fact has nothing in common with those related by Giron de Bazareingues, and which has been repeated, with small variation every year, from 1853—the period at which the observations I have noted down began. This fact consists:—

1st. In that, at the commencement of the rutting season, when the ram is in full vigour, he procreates more males than females.

2nd. When, some days after, the ewes coming in heat, and in great numbers at once, the ram was weakened by a more frequent renewal of the exertion,—the procreation of females took the lead.

3rd. The period of excessive exertion having passed, and the number of ewes in heat being diminished, the ram also found less weakened, the procreation of males in majority again commenced. The abstract results have furnished two remarkable facts:—

1st. The ewes that produced the female lambs are, on an average, of a weight superior to those that produced the males; and they evidently lose more in weight than these last during the weakening period.