

of vetches alone. But it is usually more expedient to use them with grass and clover, beginning with the first cutting of the latter in May, taking the winter vetches in June, recurring to the clover, as the second cutting is ready, and afterwards bringing the spring vetches into play. Each crop can thus be used, when in its best state, for cattle food and so as gratefully to vary their dietary.

WINTER VETCHES.

THERE is no botanical difference betwixt winter and spring vetches, and, the seeds being identical in appearance, caution is required to get it of the right sort. As the great inducement to cultivate this crop, is the obtaining of a supply of nutritious green food, which shall be ready for use about the 1st of May, and so as to fill up the gap which is apt to occur betwixt the root crops of the previous autumn and the ordinary summer food, whether for grazing or soiling, it is of the utmost importance to treat it in such a way, that it may be ready for use by the time mentioned. To secure this, winter tares should be sown in August, if possible, but always as soon as the land can be cleared of the preceding crop. They may yield a good crop though sown in October, but, in this case, will probably be very little in advance of early sown spring vetches, and possess little, if any, advantage over them in any respect.

The land on which they are sown should be dry and well sheltered, clean, and in good heart, and be further enriched by plowing into it from twelve to fifteen loads of farm-yard manure. Not less than three bushels of seed should be sown per acre, to which some think it beneficial to add half a bushel of wheat. Rye is frequently used for this purpose, but it gets reedy in the stems, and is rejected by the stock. Winter beans would probably succeed better than either. The land having been plowed rather deeply and well harrowed, it is found advantageous to deposit the seed in rows, either by a drilling machine, or by ribbing. The latter is the best practice, and the ribs should be at least a foot apart and rather deep, that the roots may be well developed before top growth takes place. As soon in spring as the state of the land and weather admits of it, the crop should be hoed betwixt the drills, a top-dressing of forty bushels of soot, or two cwt. of guano per

acre applied by sowing broadcast, and the roller then used for the double purpose of smoothing the surface, so as to admit of the free use of the scythe, and of pressing down the plants which may have been loosened by frost. It is thus by early sowing, thick seeding, and liberal manuring, that this crop is to be forced to an early and abundant maturity. May and June are the months in which winter vetches are used to advantage. A second crop will be produced from the roots if the crop is allowed to stand; but it is much better practice to plow up the land, as the crop is cleared, and to sow turnips upon it. After a full crop of vetches, land is usually in a good state for a succeeding crop. When the whole process has been well managed, the gross amount of cattle food yielded by a crop of winter vetches, and the turnip crop by which it is followed in the same summer, will be found considerably to exceed what could be obtained from the fullest crop of turnips alone, grown on similar soil, and with the same quantity of manure.

SPRING VETCHES.

F sown about the 1st of March, will be ready for use when the winter vetches are just cleared off. To obtain the full benefit of this crop, the land on which it is sown must be clean, and, to keep it so, a much fuller allowance of seed than is usually sown will be necessary. When the crop is as thick set as it should be the tendrils intertwine, and the ground is covered by a solid mass of herbage, under which no weed can live. To secure this, not less than four bushels of seed per acre should be used, if sown broadcast, or three bushels if in drills. The latter plan, if followed by hoeing, is certainly the best; for if the weeds are kept in check until the crop is fairly established, they have no chance of getting up afterwards. With a thin crop of vetches, on the other hand, the land is so certain to get foul, that they should at once be plowed down, and something else put in their place. As vetches are in the best state for use when the seeds begin to form in the pods, repeated sowings are made at intervals of three weeks, beginning as early in March as the season admits, and continuing till May. With two sowings in autumn, and four in spring, a supply of this valuable food can be had in good condition