are merely kept alive on grass or waste from grain fields, the material consumed is a direct loss. Pigs make largest and quickest gains during the summer months, if properly fed, and it never pays to just keep them alive by giving a maintenance ration, for food so fed is lost; therefore, feed so as to produce large gains, even if the pigs are grazing. A little grain and milk will keep them growing well while on the stubble, and will give good returns for both the waste and the added feed.

Feeding Cattle Scarce.

There is a general scarcity of the right kind of beef cattle on the market and in the country, and prospects look bright for those who are breeding and raising this class of stock. Different reasons are advanced to account for the falling-off in numbers, but there is no doubt that in many districts it is due to feeding cattle being replaced by dairy herds. The demand for milk, cream and butter has increased rapidly the past few years, and, consequently, many breeders have ceased to raise the beef type of stock, sold them all off to the butcher, and have founded dairy herds in their stead, while others have graded up their herds to the dairy standard.

The calves of the dairy breeds are often not suited to the production of beef, and all that are not required for breeding purposes are either knocked on the head or vealed, and sold at an early age. In factory districts hosts of these are gathered up at a dollar or two per head, but what becomes of them nobody cares to know. Even the calves from many dual-purpose cows, which would make very good steers for fattening, are often sold for veal, because the owner hasn't sufficient feed, stabling or labor to carry them to the required age for snippers' or butchers' cattle.

While this is the common state of affairs in the East, it is said that the cattlemen and ranchers of the West are each year compelled to raise fewer cattle, because of the settlement of ranching lands, and also, it is said, the scarcity of cowboys, who, they claim, are becoming fewer and fewer, some going into a small cattle business on their own account, while many of the best are picked up by circus managers and men scouring the country making films for moving-picture shows.

Whatever is the cause, the good beef cattle are scarce, and farmers and stockmen generally would do well to save as many of the calves as can be raised properly, to be fattened off for beef. Those wishing to put in a number of cattle to feed during the fall and winter should begin looking around early, for there is little doubt but that good feeders will be scarce this fall; and, when buying cattle to feed, only the right type can be made gain fast enough to give satisfactory returns. Those contemplating selling off their beef cattle and commencing the production of dairy products, would do well to weigh all the conditions thoroughly before taking the step. While the increase of population is demanding an increase of dairy products, it is also warranting an increase in the production of beef, and this latter increase is not keeping pace with the demand. The man who is pushing mixed farming with the dual-purpose cow should have no trouble in making satisfactory returns at the present time, providing he can secure the service of a thoroughly satisfactory dual-purpose bull to keep up his herd. Dairy products are bound to be in good demand, and, if along with these, he is raising each year a number of calves to be turned off for beef, which is also sure of good sale, he has two chances; while, if either is followed separately, only one exists. On many dairy farms calves are considered of very little value, but if they can be raised, and are of a fair type for feeders, such as would be the case if dual-purpose cows are kept, they are of considerable value, and would be found very profitable to raise for that purpose. Cattle-feeding has another great value, that of increasing the quantity and quality of manure on the farm, and manure is essential to heavy production. Grain-fed cattle produce a manure containing a higher percentage of fertilizing constituents than cattle fed on feed low in nutrients. Raise as many calves as you can conveniently handle; and if young stock is needed for winter feeding, do not leave the buying too late, but get it located at the earliest opportunity. Good feeders are likely to be in demand.

Eighty-five per cent. of the men in "Who's Who in America" hail from the farms, declares an American minister. And yet we have heard dozens of empty-headed young fops and shop-girls speak apologetically of having come from the country, or try to cover up the fact, as though it were shameful. There is a screw loose in their heads somewhere, and don't you forget it. If any one class of producers above others should hold up their heads with the dignity of self-respect, it is farmers. Anyone not proud to his very marrow of being a farmer is a discredit to the princeliest occupation under heaven.

THE FARM.

Two Noxious Weeds.

BLADDER CAMPION AND PERENNIAL SOW THISTLE.

During the past month, many specimens of weeds have come to this office for identification and suggestions as to means of eradication. Perhaps, of all that have come to hand this year, as well as in past seasons, bladder campion has been the most frequent. This weed seems to be gaining ground on many farms, due, no doubt, to the fact that the people are not familiar with it, and do not know the tenacious and harmful character of the pest. It is a common weed in clover fields, and the seed is spread chiefly as an impurity in clover seed.

Bladder campion is a deep-rooted perennial plant, with stems that branch rather freely. The leaves of the weed are opposite, smooth, and meet around the stems. In shape, they are described as ovate-lance-shaped. The flowers of the plant are white, and are borne in clusters at the end of the stems. They are about an inch in diameter when fully out, and very often have a drooping appearance. The white petals are two-cleft, showing a somewhat split appearance, and the calyx is much inflated and bell-shaped, and is veined with purplish veins. The plant derives its name from the shape of the calyx, it resembling an inflated bladder, and it is this that is the easiest means of identifying the pest. The pod which contains the seed has a characteristic five-toothed apex. The weed usually begins flowering in June, and may continue until August, producing seed from July until September. The seed very much resembles that of white cockle and night-flowering catchfly, and is described as being about one-sixteenth of an inch in length, irregularly kidney-shaped, light brown to dark gray in color, with a roughened surface, the tubercles being regularly arranged in rows, with a depression at the scar. It is important that farmers should know this seed, as it is quite common in commercial seeds, especially the clovers.

If the weed has just been introduced on the premises, and only a few specimens appear, careful hand-pulling is advisable, but it must be done carefully, or the root, which is often nearly two feet in length, being as long as the plant itself, will break, and may sprout out and grow again. Deep roots and rootstocks, together with the abundance of seed produced, make it a hard weed to fight. If it is present in small patches in the field, dig it out with a spade, being careful to rake out every piece of the rootstocks. When in hay, and too thick for killing in the afore-mentioned manner, the hay should be cut early to prevent the weed seeding. Immediately after cutting, plow the field rather deeply, and keep it well cultivated for the rest of the season with a broad-shared cultivator. This constant cultivation will weaken the underground stems. The next spring the deep cultivation should be continued, and a hoed crop placed on the land. The hoed crop must be worked often and kept quite clean. This, if thoroughly done, should pretty well exterminate the pest, and a cereal crop could follow the hoed crop. A short rotation of crops, which allow of deep and frequent cultivation is usually the best method of handling the weed. Care must be taken to sow only clean seed, and if it is established to prevent the maturing of the seed, and early and deep autumn or after-harvest tillage is important.

Another weed which has increased very rapidly in Ontario is the perennial sow thistle. This is perhaps the worst weed in the Province, and, while quite common, there are still many who do not know it, and who often mistake it for the less harmful annual sow thistles. This is, like the bladder campion, a perennial, with running rootstocks. Where the patches of weed are at all thick, the ground is usually a mass of these stems, which are often called roots. The first year the weed appears as small patches of young plants, with rosettes of leaves which cling closely to the ground. The following year, if left undisturbed, the plants send up flowering stems which bear large, bright yellow or bright orange flowers about 1½ inches in diameter. The seeds are about one-eighth inch long, spindle-shaped, blunt at the ends, and have ribs running lengthwise on each surface. Each seed bears a tuft of white, silky hairs, which serves in its distribution. The large, coarse plant, and the large flower and bright color, and the hairs on the stem, together with the characteristic seed, all go to distinguish this bad weed from the common annual and spiny annual varieties.

Its spread is largely due to the fact that the seeds are being produced by plants growing in waste places and on neglected farms and roadsides. The seeds blow great distances, and the plants seed profusely. In cultivated fields the running rootstocks are a means of spreading, because each broken stock will sprout out at the joint and produce a new plant. Matured plants are also harvested with the grain, and seeds are scattered at threshing time. With the many means of dissemination and the tenacity of the plant, there is little wonder that it has gained so strong a foothold.

Under no conditions should the plants be allowed to seed. When a few small patches are noticed in the fields, they should be kept down and killed by digging or hoeing. Care must be taken not to drag the roots over the land in the harrow or cultivator. The plant thrives best on low, moist, fertile land, and this class of land should be carefully watched. Since it flourishes on wet fields, underdrainage is sometimes a help in keeping it down. Where small patches have become established and are producing flowering stems in the crop, these should be mowed and burnt, and the roots dug out.

There are several detailed methods of cleaning land of this pest, and, if care is taken, it can be accomplished. It is important that early after-harvest cultivation be practiced, and this should be a light cultivation with the gang plow or the broad-shared cultivator. Later in the fall a second and deeper plowing is advisable, after which ringing with a double mouldboard plow is good, because this permits of the frost getting at the exposed roots. Cultivate the following spring until about July 1st, and then sow rape in drills at the rate of about 1½ pounds per acre. The rape should be kept cultivated until it covers the ground. This should place the land in condition for a cereal crop the next year. A short rotation is advisable. Some sow the pasture rape, and follow this the next year with a hoed crop, while others keep it down by following clover with a cereal, making a two-year rotation. A better rotation still would be clover, followed by a hoed

"As Pants the Hart for Cooling Streams."