

clean, we actually had to hand mow the Ragweed upon the pea ground before we could trust the pigs to find the uncut peas. But ours were the Crown peas, and those kinds which grow an abundance of straw might do somewhat better, and we would even advise a trial of them in those sections where corn will not do well. Yet, even with such an abundance of straw, some weeds will force through and render the cutting very disagreeable, as well as mature (unless cut sufficiently early to prevent ripening) a large crop of seeds to go into the manure heap. And this brings us directly to the question, how to prevent the growth of Ragweed? Manifestly the safest method of preventing its growth will be to prevent it from getting into the soil, either through the agency of the manure, or from being sown with field seeds. The careless habit of sowing foul clover-seed has hitherto been the chief means by which Ragweed has become so generally distributed over the country, though some farmers have unwittingly incorporated it in their soil by securing manure from others.

As already hinted, the best method of getting rid of any foul seed is by securing its germination and then preventing it from arriving at maturity. But having it in the manure we may no doubt effectually destroy it through the agency of the compost heap, when this means is feasible. Yet this may not always be convenient, as the manure may be required for the next spring's crop, when there will not be time to compost it. Though had the manure been properly heaped, when removed from the stable this disadvantage could have been avoided, so far as that manure was concerned, as it would have gone on working during the whole winter, and would, consequently, have been in much better condition for the spring use, and comparatively free from foul seed possessing any vitality. But in the event of this heaping not having been done, the next best thing will be to use it as a top dressing in its coarse and raw state, which may easily and properly be done upon all, except perhaps the hoed crops, in which case the foul seed will, in all probability, when ploughed in, remain dormant in the soil to be brought up and destroyed by the rotation to follow, which will somewhat lengthen the time consumed in clearing a field of Ragweeds. But when the manure has been applied as a top dressing, the foul seed, being upon the surface, will in all likelihood germinate the same season and come to grief through the agency of the reaper or mower and the after pasturage. Care in all cases must be exercised to prevent the maturity of weeds along fences where there are growing crops. In such cases the weeds must invariably be cut with the scythe, so as to prevent any ripening of the seeds. Now that stock growing is attaining such dimensions, we prefer to use the coarse manure on the grass lands. I know some will be alarmed about the coarse stuff being in the way of the mower and horse-rake, but there is but little danger of any trouble from this source. The writer has for years been using it thus, whole corn stalks and all, by hauling it out when there is frost and snow enough to do the work with the sleigh, thus avoiding much extra labor, and saving valuable time in the hurry of the spring work, also the cutting of the land by wheels, though the latter difficulty, including much of the former, is now overcome by means of a truck wagon with broad tires. When such manure has been early and properly applied in the spring, and the land thoroughly rolled, no difficulty need be experienced while handling the subsequent crop, which will be found to be about double what it would otherwise have been. The same mode of application may be practiced on wheat, only care must be taken to spread the manure properly from the load, or, at least, not to permit it to lay too long in heaps, or it will smother the wheat. We are now carrying out these suggestions on our second farm, which has been thoroughly over-run with the Ragweed, and with the addition of permanent grasses the system is giving entire satisfaction. Indeed, we are willing to guarantee that if the foregoing observations are carefully and promptly acted upon, in a very few years we shall have heard the last of this pest upon our lands.

"For many years I have been a subscriber to some of the best agricultural journals, and I can say that the reading of them gave me no more pleasure and profit than the FARMER'S ADVOCATE. It is the only one I continue to subscribe to, though I have no more direct interest in agricultural pursuits since I have sold my farm."

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Cattle Barns.

The rapid strides which the Canadian live stock interest has recently been taking, and the gigantic proportions it is now assuming, render a first-class cattle barn an indispensable necessity with the enterprising and thrifty farmer. These, to secure the greatest possible convenience and utility at a moderate outlay, have been, and are being, constructed upon a variety of plans. But the dimensions suggested in the proposition submitted for discussion in this essay are quite out of proportion, being entirely too narrow to admit of the best results being attained. Cattle barns should always be sufficiently wide to allow of two tiers or rows of cattle to stand facing each other, with a gangway between them wide enough to permit a team and load to pass along it. The plan adopted by the writer is as follows, viz.: The building is to be not less than thirty-six feet wide, with at least sixteen feet siding, standing upon a brick, stone or concrete wall, eight feet high, and of sufficient length to accommodate the number of cattle it is proposed to keep, say sixty feet. Such a building will furnish ample room for thirty-eight or forty head of average size, together with a large amount of storage for fodder. The lower story being so laid out as to give a gangway about nine feet wide, this will bring the cattle mangers just under the edges of the upper floor, to permit the feeding being done from above. The upper floor proper being but ten feet wide, with a foot space along each side through which to feed. These feed spaces being fitted with portable trap doors, which, when closed, form practically a twelve foot floor. Thus on the lower floor we have about twelve feet between the mangers and outer walls along each side of the building, which will give a standing floor for the cattle from four to five and a half feet, according to the size of the cattle to be accommodated, together with a gutter or drop eighteen to twenty inches wide and a walk behind the cattle. A good idea is to make the standing floor at one end of the stable longer than at the other, so as to accommodate larger cattle as well as smaller ones, as there is no likelihood of all being the same length. This may be accomplished by running the gutter slightly angling with the outer wall. The bottom of the drop should not be level, but rather should have an inclination from each end towards the centre, and should be deep enough to prevent the cattle from standing in it. The object of this incline towards the centre is to bring the liquid or urine to a pipe connecting with the drop at this point, and leading under ground and out of the reach of the frost, to a urinarius, a few rods distant, constructed for receiving and retaining the same. The propriety and utility of this arrangement will at once be seen by those who understand the value of liquid manure. The bottom of the manger should be at least four inches higher than the standing floor, and should be divided into boxes by means of a narrow partition between the two bullocks in the same stall, and by the stalls between each pair of bullocks, and tight enough to feed meal in without waste. This partition will not materially interfere with the feeding of hay, and yet will form an efficient division between the meal rations of the cattle. The floor should be made secure and firm, so as to avoid accidents from breaking through, and should fall a little towards the gutter or drop so as to effectively carry off all surplus moisture and afford a dry comfortable bed to lie upon. When plank is used for flooring, a good idea is to carry the sleepers of brick, stone, or concrete, to the desired height, and then fill in between them with stone, or brickbats and muck, or other suitable material, all to be well packed in and made level, with the permanent sleepers and the planks then laid on top. This mode affords a very warm floor in winter and cool in summer, much more so than when raised some distance above the ground, besides security from breakage. A block pavement or cement floor will give good satisfaction. Good stalls erected between each pair of bullocks and furnished with tie chains sliding on upright studs, will permit of a greater number being accommodated than any other system, except the stanchions, besides enabling the caretaker the more easily to feed any given animal or animals separately for ripening off purposes. But stanchions are not to be thought of, owing to the cruel and unnatural position in which they compel the cattle to remain, whether lying or standing. Stalled cattle should always be sufficiently at liberty to lick themselves and rub certain portions of the body with their horns.

A stable sixty feet long would be better if

divided into two or more departments by means of firm partitions with a door the width of the walk behind the cattle attached, so as to permit the movement of abeast from one department to the other, as well as other conveniences which would be realized from said door. Such a partition would very much diminish the risk from danger by a stronger animal becoming loosened during the absence of the keeper. And adjoining such a partition should be placed a narrow door forming part of the enclosure at the front part of the manger, so as to permit the attendant to easily pass from the stable to the gangway in front of the cattle, and vice versa. The space between the front part of the manger, which should not be too high, so as to allow of the easy passage of roots and other provender into the manger from the gangway, should be closed up tightly to the upper floor; but leaving a horizontal passage from twenty to twenty-four inches wide, through which to feed, and which passage or space should be furnished with doors opening upwards, so that they may be closed in whole or in part as may be desirable for ventilation. The object of this complete enclosure in front and above the cattle is to prevent the air, when warmed by the heat radiating from the cattle's bodies, passing out in front and upwards, to be replaced by cooler air, thus necessitating the warming of all the air in the building before the cattle can become comfortable. Moreover, when open spaces are left either in front or just above the heads of the animals, a current is formed by the upward movement of the warm air, and this current naturally draws the foul fumes with it, thus compelling the cattle to breathe impure air, which, in itself, is extremely deleterious to their health, besides the noxious fumes passing to the loft above would damage the feed to a very serious extent. Again, the over-lays or beams just above the cattle should incline several inches towards the centre of the building, and the floor on them should be laid with strong tongued and grooved stuff. The object of such arrangement is to form a perfectly tight enclosure about the cattle, which, when the trap doors in the feed spaces along the upper floor are closed, will be secured. Thus all drafts towards the heads of the animals will be corrected, and all waste of natural warmth, together with the ascent into the loft of noxious fumes to foul the fodder, will be avoided.

Then, again, the elevation of the ceiling towards the outer wall will facilitate the backward movement of the foul emanations to further escape by means of box vents or shaft connecting with the loft floor, and extending upwards along the wall and out through the roof as seen in the profile. These shafts should have placed in them check valves, so that the caretaker can easily regulate the ventilation. In this manner good and efficient ventilation can be secured, and yet it will be under the full control of the operator. Furthermore, when the loft floor has been laid as above, and the fodder, which has by this means been protected from injury, has been removed either during the winter or early spring, all cold drafts from above are obviated, and the uniform temperature of the stable can still be maintained; and upon this consideration alone may depend the success or failure of the feeder. It may already have been observed that according to this plan the loft above the animals on each side of the upper drive floor will constitute a bay with a breast beam, say two feet high, and above these breast beams and about eight feet above the floor, should be another timber similar in size to the breast beam and supported by means of 4 x 4 studding placed four or five feet apart, across which portable beams or stringers may be placed so as to form a temporary loft over the drive floor. By this means, after the two bays have been filled to the greatest extent possible, and after the temporary loft has been erected, all the available space above the floor and to the roof can be utilized. This may be best accomplished by erecting the temporary scaffolding in sections, say from one purline post to the next one, when hand pitching is the mode. But if the horse fork is resorted to, then it will be better to erect all of the temporary scaffold, only leaving room for the load to enter the barn. When unloaded the empty wagon can pass on through. The writer, this last season, was so crowded for room that all was covered but about four feet to pitch up through. In this way all space is utilized, and space, with the least outlay for roof, etc., is an important item of economy in building. Should the builder not desire so much stable room at first, then he may omit the over-lays and stalls on one side of the barn and permit the hay to extend to the stable floor below, and so secure additional