

The Farmer's Advocate AND HOME MAGAZINE.

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as heretofore is being heeded by all farmers. Keep on producing is their motto. They are raising no outcry for increase or destruction of live stock. They know that the safest policy is to go ahead with their breeding operations as before, selecting the best to be kept for breeding purposes, fattening some as calves or lambs, and others in the mature state as feed and other conditions warrant. Farm business is in safe hands when the farmer does it himself. The country is not likely to benefit from too much interference with production from outside. The business of live stock production is in good hands, and there is no reason for anyone to become panicky. Keep the good stock. Discard the scrub. Breed for quality rather than quantity. In the meantime the food controllers in Canada and the United States might turn on a little light re the importance or otherwise of live stock in times of food shortage and explain just how our proportion of live stock to cereals works out. Canada is out for organized effort to win the war, but the lining up of all resources is a slow process. Our people must have meat. Soldiers cannot fight without it. We are told that a vegetarian diet does not make for efficiency. All indications point to a scarcity of live stock after the war. So "carry on."

Nature's Diary.

A. B. KLEGG, M. A.

One of the weeds for which a constant watch should be kept in localities in which it is not already present is the Field Bindweed, (*Convolvulus arvensis*), also termed the Small-flowered Morning Glory, as once established it is one of the hardest of all weeds to eradicate. This plant belongs to the Convolvulaceae, a family of plants which may be recognized by their twining habit of growth, arrow-shaped leaves, funnel-shaped flowers, and the fruit, which are spherical, cartilaginous capsules with distinct compartments. There is one genus in this family which does not exhibit the above characteristics, the genus *Cuscuta*, to which the Dodders belong, a group of degenerate parasites, without leaves and with small flowers.

The Field Bindweed is a deep-rooted perennial with extensively creeping, cord-like, fleshy, rootstocks. These rootstocks throw up numerous, slender, branching and twining smooth stems, which form thick mats on the surface of the ground and twist around any plant growing within reach, using them as support, and often climbing them up. The leaves are from one to one and a half inches in length and are shaped as shown in

the cut. The funnel-shaped flowers are pink and a little over an inch across. The seeds of this species are rather large, being one-sixth of an inch in length, dark brown, pear-shaped, one face being convex and the other being bluntly angled with flat sides. The surface is roughened with small projections, and the basal scar, the point at which it was attached to the inner wall of the seed-pod is a reddish depression at the lower pointed end. This species blooms from June throughout the summer, and the seeds begin to ripen in August.

The main method of propagation of this species is not by seed, but by means of the rootstocks, and it is this feature which makes it so hard of eradication, as when the rootstocks are broken up by the plow every little piece grows into a new plant, and since these pieces are dragged to various parts of the field the plant is spread rapidly in this way. The best method of dealing with this pest is a short rotation of crops, including late-sown roots or other cultivated crops. Frequent use of a broad-toothed cultivator will destroy new growths and exhaust the vitality of the plants.



Water Hemlock.

The careful inspection of seed, in order to ascertain that it does not contain the seeds of this species, is important, as it is in the case of all weeds.

A plant with which every farmer whose farm embraces any areas of swampy land should be familiar is the Water Hemlock, (*Cicuta maculata*), also known as Spotted Cowbane, and Beaver Poison. The root of this plant is extremely poisonous and the plant is consequently dangerous to stock, yet I find not one farmer in fifty, on whose land it is growing, knows the plant.

This species belongs to the family Umbelliferae or Carrot Family, a group which may be known by the characteristic shape of the flower clusters, these being that topped, and the flowers being borne at the ends of



Field Bindweed.

long rays, as shown in the figure. It is a native perennial with a stout, hollow jointed, widely branching stem from three to six feet in height. The stem is very smooth, pale green, dotted and streaked with purple. The flowers are small and white. The leaves are compound, that is, divided into leaflets, as are the leaves of most of the Umbelliferae. The underground portion consists of a bunch of fleshy, spindle-shaped tubers.

In the wet land in which the water Hemlock grows there are several other species of Umbelliferae, which have hollow stems, compound leaves and white flowers, and the points which discriminate this species from the

others are the purple-streaked stem and the leaves being shaped as shown in the figure.

It appears as if the stems, leaves and flowers of this plant may be eaten by cattle without injurious effects. The seeds are reported to be poisonous to stock and the tubers are certainly deadly. The active principle is the alkaloid Cicutine, and the tubers are so rich in this poison that it only takes one fair-sized tuber to kill a cow in fifteen minutes. The most prominent symptoms of cicutine poisoning are staggering, unconsciousness and frightful convulsions ending in death. In man there is violent vomiting and colicky pains in the early stages. There is no known antidote. Human beings, usually children, are not infrequently poisoned by eating the tubers. If there are comparatively few plants of Water Hemlock present in damp land to which cattle have access they should be pulled out and burnt. If they are left lying on the ground they may, of course, be eaten or trampled by the cattle in which latter case poisoning may result from the drinking of the water thus contaminated with cicutine. If the plants are too numerous to be pulled the place in which they grow should be fenced off.

Courage Brother Farmer, Keep Climbing.

BY ALLAN McDIARMID.

I remember wondering when I was a comparatively young chap why it was that some of the farmers that I knew were poor and some of them were what I then thought very wealthy. They all lived in the same community and had the same number of acres of land and were engaged in the same lines of production, as a rule. Why they weren't all poor or all rich was a problem to me, as it no doubt was to some of themselves.

But further thought and a little observation have led me to believe that I have discovered several possible causes for this condition of the people of the world in general and particularly of ourselves of the farming community. There isn't much of a question in the minds of most of us about poverty being evil. A man may be good in spite of it, but as a rule it is the result of lack of progress and general laziness. It isn't natural for man to be poor. All the instincts of the healthy individual lead him into a line of action that results in prosperity and well-being. The prosperous man has opportunities that do not come the way of the poor man. He can build up a character through the education that books and travel will give him, and his associations are, as a rule, on a higher level than is the case with the man who has been kept down by lack of means. It's just a case of having things that will promote our growth, or of being without them. And I don't think that there is any necessity for any man who is in a healthy state of body and mind to be in this latter condition. Poverty is a habit, a sort of second nature, that needs to be fought against and overcome like the habit of chewing tobacco, for instance. And in this fight with the poverty habit the first thing we will find ourselves up against is fear. Fear restricts enterprise in every direction and we'll never get very far along the road to success till we overcome it, to a considerable extent, anyway.

I can remember lying awake at night at a certain time in my life and thinking of debts I owed here, and others I owed there, and coming to the conclusion at last that I could never pay them this side the grave. And the effect was to discourage me in the effort to do so. Better thinking brought better conditions, but it might have easily turned out differently.

There is no lack of wealth on this earth. The trouble is that we are afraid to go out and gather it in. It has been estimated that there is enough building material in this country alone to provide a palace as large as the Parliament Buildings in Toronto, for every man, woman and child in the Dominion. If that is the case we don't need to worry about the supply, at any rate. It is more likely that the trouble is in ourselves. In our lack of knowledge of how to go about getting this wealth. We get to thinking that certain things are too good to come to us, but as a matter of fact nothing is, if we will only fulfill the conditions. The Creator who is responsible for our being here wants us to have all we can use that will help to carry us on towards happiness and perfection. The greater the amount of material things a man has, the faster he can progress. He must make right use of them, however, if his progress is to be continuous.

Some of us drive money away from ourselves by our mental attitude. We hate poverty, but we invite it to come and stay with us by continually expecting it. We are inclined to travel the dead-level road of the one where each step is a step upward. And nothing can keep us off this upward road but ourselves. We may get set-backs, but as I have heard it expressed, "every knock is a boost."

Courage is one thing the farmer, or any other business man, must have if he is not going to remain poor. Opportunity comes, not once, but hundreds of times to almost every man, but it does him no good if he hasn't courage enough to enable him to grasp it. We must have daring enough to risk investing something in our business if we hope to get more than a mere living out of it. This calls to my mind the case of a young man with whom I am acquainted, and who, in his earlier years on the farm was just about as poorly situated as the average beginner, at least. But he had more than the average amount of courage, and it made up, in the end, for all he lacked in other respects. His live-stock, horses, cows, pigs and hens, were scrubs of the worst description. But he started in to improve them without loss of time and invested what money he could gather up in several pure bred animals as the foundation of his