

Efficient Farming

SOME LITTLE-NOTICED WEEDS.

Every farmer knows "thistles," "burs," "mustard" and a host of other weeds; but what he does not always know so well is that he is often making these familiar names cover a multitude of pests, by no means alike either in appearance, or importance. By "thistle" the average person means the so-called Canada thistle, which is really the field or creeping thistle of Europe. The term is also a part of the name of the big, rough bull thistle of pasture lands, sometimes known in Canada as Scotch thistle, which is, however, still another weed; and the sow thistles, (perennial, common, annual, and spiny annual); of Russian thistle, which can be found along railroads all over the country, but is best known to farmers in sandy districts where soil drifting occurs; and of numerous other weedy plants having more or less resemblance to true thistles. The same remarks could be made of the loose use of the term "mustard" which embraces even a greater number of distinct weeds, often with much resulting confusion. The point we wish to emphasize is that some very serious weeds, new to the country or to a locality, are allowed to masquerade under names whose very familiarity breeds contempt, until we presently awake to a realization of the sorry truth that we have admitted one more rogue to the hungry crowd already contending with our crops for possession of their resources.

During the past season alone, our somewhat limited opportunities for field observation revealed the presence, in localities where they were before unsuspected, of quite a number of weed waifs from other parts of the country. Thus, Russian pigweed, (quite a different weed from the well-known redroot pigweed) was found to be spreading, apparently for only a year or two yet, at Ottawa; and considering how widely it has over-run the West from the point of its first discovery near Winnipeg, we will be well advised to be on our guard. At a number of places in Canada favorable to it, the persistent colts-foot of heavy soils in the Old World has become established, and what it has its holds, even if not spreading so rapidly. Another old-country nuisance, a grass known as Yorkshire fog, is now so firmly entrenched in the congenial moist environment of coastal British Columbia, and is also finding places where it can thrive in the east. At three points in Eastern Ontario the western perennial ragweed was found to have gained a foothold. Rough-fruited cinquefoil, an upright growing species with rather large, handsome yellow flowers and "five-fingered" leaves, is still a stranger to most farmers, but on a number of the lighter areas, especially of Ontario, it is becoming a permanent element of the weed flora, just as the equally handsome blueweed, or blue devil as some farmers on that type of soil prefer to express it, became some years earlier, to their abiding grief.

These are but a few instances of many weeds that have recently attracted notice by their unexpected appearance or spread. Space does not permit of enumerating the full list, nor have we space to give descriptions by which they could be recognized. We are ready upon request to advise on any weed, and desire particularly to receive the earliest possible notice, with specimens, of any suspicious-looking plant interloper. —Dominion Dept. of Agriculture.

PREPARING ROOT LAND.

One of the chief causes of root crop failure in this country is insufficient preparation of the soil before the crop

is planted. On a great many farms, roots are sown on timothy sod land and precede grain. Too often in the cultivation of such land, the requirements of the crop are lost sight of, with the result that the roots are sown on spring-plowed sod where it is next to impossible to secure a proper seed bed.

For their proper growth and development, root crops require a deep, mellow, fertile seed bed, free from weeds. This is especially true of mangels, which have a strong tap root and require their nourishment farther down in the soil than swedes. Roots will not thrive on weedy ground and efforts made to control the weeds while the plants are small often result in as much damage to the crop itself as to the weeds. It is well, therefore, to control them before the crop is planted, and the best time for this work is during the summer or fall previous to sowing. This is especially true of the land intended for mangels which require to be sown early in May, thus leaving little time for spring cultivation.

For the best results, sod land intended for roots should be plowed in July or August, as soon as the hay is removed. It should be top worked at intervals until fall to control grass and weeds. For couchy ground the spring-tooth harrow or duckfoot cultivator are very useful in bringing the root stalks to the surface of the soil; when they may be gathered and burned. For the best results, this work should be done during hot, dry weather.

All root crops are heavy feeders and require plenty of plant food in the soil. They may be grown on light or heavy soils with good results, provided they receive proper fertilizing and care. Splendid crops may be grown with barnyard manure alone, applied at the rate of 18 or 20 tons per acre. If the manure is available it should be spread in the fall and plowed deep into the soil. Plowing the manure down, in the fall, gives it a chance to rot and prevents loss of fertility. On the average farm, however, there is seldom manure enough available at that time of the year and the farmer has to depend on what is produced during the winter, which may be applied on the snow or, better still, it may be stacked and applied in the spring. Fresh green manure is not a suitable fertilizer for roots, therefore the manure for roots should be piled up or applied as early in the winter as possible. This should be plowed down in the spring to a depth of six or seven inches in order to secure a deep mellow seed bed.

Commercial fertilizers may be used profitably if manure is scarce. Basic slag is a useful fertilizer for turnips and should be applied in the fall or early spring. Where club roots is troublesome, experiments have shown that quicklime applied in the fall at the rate of one-half ton per acre is beneficial. However, seed from a strain proven resistant to club root should always be used in such cases. Such strains have been produced on the Experimental Farms. If no manure is available, an application of 150 pounds nitrate of soda, 400 pounds acid phosphate and 75 pounds of muriate of potash per acre will give good results, where the land is fertile. Poor or light soils will require a heavier application. This should be broadcast after the ground is disked in the spring and should be harrowed in with a smoothing harrow.

If part of the nitrate of soda is reserved and applied later on, when the plants are three or four inches high, it will help to stimulate growth. It should be applied on a rainy day, as otherwise it is apt to cause burning of the young, tender plants.

How to Break Up Broody Hens.

As the hatching season is ended the problem of broody hens will be confronting most poultry raisers for the following month or two.

Numerous methods have been advocated from time to time for handling broody hens. Almost everyone in any neighborhood has a pet plan for breaking the hens of this condition, which is guaranteed to work. Many of these are founded on sense and will give results, while a good many are founded on abuse of the hens, which should not be practiced.

One favorite method we used to have on the farm was to dip the hens in a tub filled with water. We kept them under the water just as long as we dared without drowning them. This was supposed to scare the hen so badly that she forgot about wanting to set. Sometimes it worked and sometimes it didn't. When it didn't, something else had to be tried. The broody trait in hens is not a "notion" but a natural condition in response to natural laws. The longer the hens are tolerated in this condition, the longer it will be before they return to laying and the less the profit realized from the investment.

the hens liberally on a good egg day which would within a few days have induced the hens to lay. Once laying is resumed the broody trait will disappear.

The open yard method of breaking up broody hens is one of the most humane treatments we can give the fowls and is also most productive of results. The method is simple. A small area is fenced off in a grassy and shady corner in which a box is placed for protection in bad weather. The hens are turned loose in this yard and plenty of fresh water and feed is given, and as a rule the broodiness ceases in a short time.

Slatted and wire mesh coops indoors or out work fairly well when the bird is caught in time, but in warm weather do not give satisfaction. According to my judgment, the best method for curing broodiness is the open yard. There is less expense, work and trouble involved in this plan than in any other tried. It breaks up the birds more quickly and thus gets them back into the laying class with a minimum loss of time.

Those who quit feeding the poultry flock much now are inviting the hens to molt early. A good molt will help them laying.

Now that touring time is here once more it might be well to state that many farm women are still taking annual jaunts of 20 miles and more each year just to bring the necessary water from the well, located by the barn, to the house to perform her regular duties.

Timely Suggestions.

Seasonable Hints, issued by the Dominion Experimental Farms, contain many timely suggestions, among which are the following:

Good markets can seldom be gained and most certainly can never be held unless our products show top quality. Canada's per capita consumption of home products is not nearly as large as it might be were farmers to produce, pack, and attractively display such things as the Canadian consumer most desires.

For the feedings of steers or beef cattle barley has a high commercial value.

The suitability of barley for bacon production has been repeatedly demonstrated; but it is not a desirable feed for brood sows before farrowing or during the early part of the nursing period; nor should it be fed to newly weaned pigs in any appreciable quantity.

Experiments at Nappan, N.S., show that the average heifer with a production of over 5,000 pounds of milk as a two-year-old is 100 per cent superior to the average heifer below 5,000 pounds at the same age.

In choosing a dairy herd, pure breeding, size, conformation, quality, and record backing should be given first consideration. In sizing up the milk record on a pedigree, it should be remembered that the important records are those close up. If improvement in the herd is to be accomplished, the herd sire must be of better quality than any of the other animals in the herd.

The care of live stock during the

stormy weather of autumn, and when pastures are bare or dry, is an important factor in successful live stock husbandry.

The vegetable garden seed plots of this season of the year require particular attention especially concerning cultivation, weeding, and protection against insects and diseases.

The storage life of an apple depends largely on the treatment it receives during the six or eight weeks following the time it is picked. Air-cooled or common storage houses offer a relatively cheap, and when properly constructed and carefully operated, a fairly efficient substitute for a local cold storage plant built on a large scale. The storage life of even the summer apple can be considerably prolonged by the use of air-cooled storage.

Careless or improper methods of curing alfalfa and clover for hay may result in a loss of as much as fifty per cent of the entire crop. The bleaching of hay by the sun and the discoloration by dew and rain lower the market price.

Cod liver oil is not only good for children but it puts strength into the legs of little chicks as well.

Unless pastures are improved and made to return larger volumes of feed they will slowly give way to crops.

It is bad that women who, because of poorly arranged kitchens and lack of conveniences have to walk about fifteen miles per day, do practically none of the journey out where the air is fresh.

FOOT AND MOUTH DISEASE

Outbreaks of Foot and Mouth Disease have never occurred in Canada. This disease is probably the most infectious malady of animals of which we have knowledge and causes tremendous losses to the agricultural interests of any country it invades. It spreads very rapidly and extensively, and entails the entire loss of export trade in live animals and the interruption of domestic commerce. Unlike most other infectious diseases Foot and Mouth Disease may attack the same animals repeatedly, and they are, therefore, a dangerous source of infection.

There is no permanent cure for Foot and Mouth Disease, the majority of affected animals recover from an attack in ten to fourteen days without

swine, all ruminating animals are susceptible. Horses, dogs, cats, and even poultry, have been victims of the infection, the last three classes being dangerous as carriers of infection. Man may also become infected, and children frequently suffer through drinking raw milk from infected cattle.

As all the natural discharges of affected animals are highly infective, and as some of them, particularly the saliva, are largely increased during the attack, the disease is readily conveyed by these media. It is frequently conveyed from place to place by human agency, such as attendants, owners and interested neighbors, as also by dogs and all small animals.

Although the fatalities are quite



Cow showing typical sores at mouth in early stage of Foot and Mouth Disease.

treatment. The greatest difficulty is the eradication of the infection and this can only be accomplished by the slaughter of all affected and exposed animals, the proper destruction of their carcasses and the thorough disinfection of all contact matter. If not controlled by these radical measures the disease spreads very rapidly throughout the whole country, affecting practically all susceptible animals with enormous economic losses.

The disease commences with a high fever, followed by inflammation of the membranes of the tongue and those lining the mouth, also of the sensitive structures in the hoof. This is quickly followed by the formation of blisters on these membranes, varying in size from that of a pea to that of a hazel nut. These blisters also appear on the udders and along the top of the hoof, also in the cleft dividing the hoof. They may be present in all these membranes in the same animal, or may appear only in the mouth, or may be limited to the hoofs.

The symptoms are very characteristic. The irritation of the membranes in the mouth results in loss of appetite, and dribbling of saliva from the mouth, which, owing to constant movement of the lips and tongue, becomes frothy and adheres to the corners of the mouth and muzzle. The animals often make a peculiar smacking sound with their mouths.

Extreme lameness occurs when the lesions appear on the cleft and on the top of the hoof.

The fever and the difficulty in eating causes a rapid and extreme loss in flesh, and a serious lessening or cessation of the milk secretion.

The udders often become inflamed and ruined by abscess formation, and a large number of cattle so affected are rendered permanently valueless for milk production.

The inflammation of the feet frequently results in the shedding of the hoofs, causing permanent injury. While this disease is essentially a disease of cattle, sheep, goats and

low serious losses result from the diminution or cessation of the milk secretion and consequent interference with the business of the dairy, as well as through the extreme loss of flesh in animals. Dairy farmers are put entirely out of business for indefinite periods. Quarantine restrictions seriously interfere with the movement of livestock, their parts and products, also of hay, straw and other feedstuffs, in addition to other farm products. Stockyard operations and the business of slaughtering centres are seriously interfered with. Marketing, transportation, feeding and slaughtering operations are deranged and interfered with. Losses of this character may reach enormous proportions. The foreign markets are promptly closed and the export trade of an infected country is lost for long periods.

The British authorities have been endeavoring at a cost of millions of pounds to eradicate the infection of this disease in that country for over two years, and those of the United States are similarly engaged in the State of California, where it was recently introduced from foreign countries through the port of San Francisco.

The Canadian Federal Department of Agriculture, with a view to protecting our live stock interests, are enforcing the most stringent regulations which cover the species of animals and commodities that are likely to carry the infection of the disease.

If live stock owners should have reason to suspect the existence of this disease in Canada, it is of the utmost importance that they notify the nearest Veterinary Inspector and telegraph collect to the Veterinary Director General at Ottawa. In the meantime they should tie up their dogs and not permit anything to leave their premises. Prompt control measures and the willing and intelligent cooperation of the stockmen are essential to prevent disastrous results if the infection of this disease gains entrance to Canada. Every one should remember, however, that prevention is better than control.

The Sunday School Lesson

JULY 27.

The Temptation of Jesus, Matthew 4: 1-11. Golden Text—In that he himself hath suffered being tempted, he is able to succor them that are tempted.—Heb. 2: 18.

INTRODUCTION.—The call received by Jesus at his baptism, marks a great spiritual crisis in his earthly experience, and is followed by a prolonged period of conflict, in and through which he obtains divine clearance regarding his future task. The voice from heaven had designated Jesus as Son of God, but what kind of vocation did this name signify? It is not enough to say that it meant that he was the Messiah, for what does Messiahship mean in the way of life and duty? Many ideas of the Messiah were current in that age. Some of them were very worldly and unspiritual, and Jesus not only found in them no guidance, but turned from them as from positive errors and temptations. This now is the meaning of the temptation experience. "Led by the spirit," Jesus withdraws into the wilderness in order that, in solitary communion with God, he may receive light upon the path of life. There, one by one, the forms in which the ages, past and present, have pictured to themselves the divine Messiah, rise before his mind, and are rejected by Jesus as having their origin not in God, but in Satan. By these ideas Satan tries to turn Jesus from his course, but is decisively repulsed.

I. THE MESSIAH TEMPTED, 1, 2. Vs. 1, 2. The Spirit which "leads" Jesus is the Spirit which descended upon him at his baptism. The baptismal experience has filled his mind with absorbing thoughts which require for their working out, a season of prayer and solitude. It is to the desert that Eastern prophets and saints retire when they wish to be alone with God, and therefore Jesus is led there by the Spirit. So great is the absorption of his mind in the task of his calling, that he takes no thought for food, but fasts for forty days. In the hunger and weakness which follow the fasting, his ordeal becomes intense.

II. THE MIND OF THE AGE AND THE MIND OF CHRIST, 3-10.

Vs. 3, 4. One form in which the mind of the age pictured the Messiah, was as giving heavenly bread to the people. This had been done by Moses when he prayed, and God sent the people manna. Many in the time of Jesus thought that when the Messiah came, he, too, would provide miraculous bread for the multitude. And this Jesus refused to do. He refused to place his ministry on the low plane of the senses, or to be what the Jews wanted—a Messiah who would feed their bodies and clothe them.

Tempations of the Mind. This places this temptation second. It is a suggestion that Jesus become a Canaanite yielding to ambition for place and power by the most direct method, and is self-seeking in its ideas, aiming at noble gifts for "miserable aims that end with self." There is an ambition, not for place, but for fitness to fill the place we have, that is in every way worthy. But temptation comes to "get while the getting is good," a political method responsible for most governmental inefficiency, and the majority of our social ills.

Tempations of the Spirit. By such an appeal to spiritual pride, the tempter would have our Lord presume upon the protecting power of God. Some one has written regarding this, "In pestilence the best prayer is the right use of sanitation; when a captain disregards his charts and drives his ship on the rocks he has no right to expect the Almighty to save it; a man cannot be a glutton and then blame his Maker for dyspepsia." Tempting God is a very different thing from trusting him. Shall we continue in sin that grace may abound? God forbid. Pray rather, "Lead us not into temptation."

Caring for Cream on the Farm.

As soon as the cream is separated the container should be placed in cold water and kept there until time for delivery. Cream can be cooled more quickly in a cold water tank than in a refrigerator.

2. Do not mix warm and cold cream.

3. In order that cream may have a good body and be free from lumps it should be stirred at least twice a day.

4. Frequent delivery is essential in furnishing good cream. Cream over three days old will not make the highest grade of butter.

5. A clean, cold water-soaked blanket thrown over the cream cans kept there while en route to the creamery will aid in keeping the exterior of the can clean and the temperature of the cream down.

6. The washing and scalding of cans is of the greatest importance. High grade butter cannot be made from a raw product that has been spoiled by neglect. With flies, dust and hot weather to contend with, eternal vigilance is the only practice.

Floral Medal Offered.

The Canadian Horticultural Council will award a gold medal annually for the best new variety of flower plant recorded with the Council during the year. This has been made possible through the generosity of the Canadian Florists' and Gardeners' Association, which donates the medal. The Registration Committee of the Council will judge the entries.

Tempations and Tests. There is a great difference between these two. A test is "subjection to conditions that disclose the true character of a person or thing." A test may be made with "wholly good intent." Its purpose is to reveal qualities by which the person may be better and more useful. Thus the school examination is made the basis of promotion, and the true test means of winning a place on the team. So, too, a statement of previous experience is required in qualifying for some coveted position.

Even the steel ship has its trial run, and the new bridge must prove its carrying capacity. Tests and trials are made by God, and by good means. They may reveal weakness but are never meant to cause an injury. We learn to swim by risking the water. A temptation is a different matter. The intention is to cause evil action, injury and loss. It is a test with the desire of making the person yield to wrong.

Tempations of the Body. It is hard to master physical temptations because they are based on natural desires. Eating and drinking are necessary to life. They minister to the enjoyment as well as to the continuation of life. Yet gluttony, and all its kindred indiscretions in the matter of food habits, is the root cause of most sickness. Just as the children pay the penalty of "too much Christmas," so the human family continues to suffer for its appetite. If we would only "eat to live," rather than "live to eat," we should be less sluggish in learning the great truth that "man shall not live by bread alone." But we are of the earth, and as our friends have we, the news of whose death would so affect us, that we should miss a single meal? But so simple a test as this may we balance the depth of our sentiment against the pull of our appetite. Drunkenness is becoming, more and more, not the joke it once was considered, but a thing to be deeply ashamed of, indicating a higher standard of attitude towards things physical. "When the fight begins within himself, a man's meaning upon the love of God, and Jesus would have none of it. He answers, using the words of Deut. 8: 3: "Man shall not live on bread alone, but by every word that proceedeth out of the mouth of God." That is to say, man's primary need is spiritual, and therefore, however popular the idea of a bread-giving Messiah may be, Jesus will minister only to the spirit. He will not put the material in the place of the spiritual, for that would be yielding to Satan.

Vs. 5-7. Another form in which the age pictured the Messiah was as giving extraordinary "signs" of a supernatural character. The 91st Psalm spoke of the man who dwells in the love of the most High, as being supernaturally protected, and in it occurred the words: "He shall give his angels a charge concerning thee: And in their hands they shall bear thee up, lest at any time thou dash thy foot against a stone." Men thought of these words perhaps as referring to the Messiah. Consequently in Jesus' temptation, which should be thought of throughout as inward or mental, this conception also rises before his mind, and the question occurs: Suppose he, taking the word of the Psalm literally, should cast himself from the temple pinnacle, would God's love protect him from death? This would be a great "sign" to the people, and they God's enthusiastically acclaim him as the Messiah.

But from this idea of the miracle-working Messiah, as from the other idea of the bread-giving Messiah, Jesus turned away. It marked not God's way, but Satan's. It was Satan who conjured up such thoughts before the mind of the age, and Jesus answered: "Thou shalt not tempt the Lord thy God."

Vs. 8-10. A third conception of the age was that when the Messiah appeared, he would be given political dominion over the nation, and would be an earthly ruler. This seemed to be guaranteed by the words of Ps. 2: 8, "Ask of me, and I shall give thee the heathen for thine inheritance, and the uttermost parts of the earth for thy possession." The Jews all thought that this promise would be literally fulfilled, and they dreamed of an Jesus see himself as the Messiah. So the summit of a high mountain, taken to be the world, were spread before him, and a voice says, "All these will I give thee, if thou wilt but bow down and worship me." But does Jesus consent to such an idea of Messiahship? He does not. It would mean giving in to Satan's methods, and Jesus dismisses the tempter with the words: "Thou shalt worship the Lord thy God, and serve him alone."

Christ has rejected man's ideas of the Messiah in order to be guided and regulated only by God's thoughts. If he is to be the Messiah, it must not be in self-will, but only as the Father reveals and appoints. Jesus will surrender himself absolutely to God, to be used just when and where and as God wills. The temptation is the record of a holy act of total surrender.

The Kingdom that I seek

Is thine; so let the way That leads to it be thine. Like I must surely strap.

Sydney, Nova Scotia industry at Iona, C.E. a mid boom and a staff for summer operators of the qu stock for water sh foundland, where the new and extensive m

Gaspé, Quebec.—T schooners have been and will engage in the Gulf of St. Lawrence since 1913 and of Wick Fisheries, owners of the schooner Montreal market fish.

Fort William, Ont. the past season, ever recorded. Counties and individual in the district cut pulpmoed, over 1,000 48,534 sawlogs, 19,252 well as a large quantity timbers, telegraph wood.

Fort William, Ont. at the head of the La from September 1st, 1924, totalled 328,222 compared with 281,630

LARGE MAJOR AGAINST PROHIBITION

Saskatchewan Province announce Emphatic Questionnaire

A despatch from the majority against of prohibition in Saskatchewan, 26,500 mark and On the basis of the all of them from most of them contribute, some people that the final returns 35,000 and 40,000.

Thursday evening reported and from 9 information. These a total vote against p

H.M.S. Hood photo naval squadron of two

CANADA'S DELIVERED FULLY

Senator Belcourt sent Dominion Allied Conference

A despatch from Canada has secured the Inter-Allied Conference committee will attend the member of the British nation, with full powers to represent Canada, the presentation to be followed by the adopted Peace Conference, with gates, one of whom will be of the Dominion's

There may be some onces from the method Paris. In this regard, Government is not insistent. But the broad principle of Dominion representation, has been accepted. The Dominion Government advised by Rt. Hon. Secretary of State for of a meeting of High in London to-day at Belcourt was present.

Belcourt was present. Mr. Thomas outlined the British Empire, and as Canadian representative attend the main Conference to time, according to made under the panel

Premier King has prepared to accept and court will therefore attend the British Empire, and as Canadian representative attend the main Conference to time, according to made under the panel

Northern Alberta's egg becoming increasingly week's exports recently 1,500,000 eggs. Yet only ago Alberta was importing some instances, from China