

Winter Months on the Farm

How to
Improve
Them

Weed Eradication

Waste from Weeds and How to Control
and Eradicate These Serious Pests
By PROF. R. A. MOORE
Wisconsin College of Agriculture

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Crops losses aggregating millions of dollars occur annually throughout the United States due to lack of efficient weed control. Immense areas are infected with weeds to an extent that makes it very advisable to carry on a determined warfare to eradicate them. For many years those interested in scientific and permanent agriculture have considered the menace of weeds and have issued warnings against them. This early work dealt almost wholly with preventive measures, largely along the line of seed inspection to insure clean seed.

Farmers on the virgin soils of the United States where weeds were not numerous were inclined to ridicule the idea that they could ever become seriously troublesome. The fears of the scientists have been realized, however, and there are now many farms in this country which have been abandoned because the weeds have multiplied and spread so rapidly that the farmer has become discouraged and given up in despair. Noxious weeds are spreading at a rate which has alarmed those who are acquainted with the seriousness of the situation. There are many farms where 25 per cent. of the crop producing capacity has been destroyed by weeds. There is a great necessity of some concerted action for weed control and eradication with respect to two of the most widespread and serious weed pests.

The Worst Weeds.

While there are many weeds which are proving troublesome on farms, there are two which are pre-eminent noxious, particularly in Wisconsin and the north central states, viz.: Quack grass and Canada thistles. These weeds are extremely difficult to eradicate because of their peculiar nature and habits.

Wild mustard has become a serious pest in the grain fields of many states, and in some sections is getting beyond the control of farmers using ordinary methods of eradication. Land values have deteriorated where the fields have become thickly seeded to mustard. Considerable effort has been expended by farmers in pulling the mustard plants when in full bloom at a time when the weed could be easily recognized in the grain fields, but when fields became badly infested this was a laborious task, and often was done at the expense of one-half or more of the crop.

Other weeds which are especially obnoxious are the Sow thistle, Star thistle, English plantain, Ox-eye daisy, Toad flax, Dodger and Velvet leaf, and in many sections other weeds are serious.

Quack Grass Serious Foe.

Quack grass is a perennial plant living from year to year unless prevented by some unusual circum-

stances. It reproduces itself by means of seed and by means of the rootstocks. It is the rootstocks which give the plant its noxious character, as they must be killed to eradicate it and they possess a great deal of vitality. At each joint new roots are thrown out and at many of them new stems start. In this way the grass spreads rapidly and a piece of the

rootstock with one of these joints on it will produce a new plant, although it may not be over one-half inch long. The whole plant grows rapidly and ripens its seed usually in July and, where growing in meadows, may be gathered in the hay, from whence it gets into the manure to be scattered broadcast over the farm.

If growing in grain it will be harvested and threshed with the grain, and if the grain is not graded with extreme care some of the quack grass will be sown on the fields the next year.

Canada Thistle a Menace.

Like Quack grass the Canada thistle is a perennial plant. In height it ranges from one to three feet, depending on conditions. The Canada thistle has no rootstocks like the Quack grass, but is possessed of true roots, the parts of which are capable of producing plants. When undisturbed by cultivation the roots are apt to lie near the surface, but go deeper in cultivated soil and where it is particularly loose and porous may be found at a depth of three feet.

Canada thistles seldom bear seed in fields that are cultivated annually, but in those fields that are seeded down to clover or grasses.

Methods of Weed Eradication.

Many methods have been devised and advocated for the eradication of Quack grass and Canada thistles. The success of any method depends very largely upon soil and weather conditions and a method which has proven entirely successful under one set of conditions has frequently failed when used under somewhat different conditions. Quack grass is more persistent and more difficult to eradicate than the Canada thistle, hence any method which will eradicate Quack grass will surely destroy Canada thistles.

This method can be used successfully except on wet or extremely porous soils. No crop can be grown during the year in which this treatment is being given. It consists of plowing deep enough to reach the horizontal roots, four times in a dry season, and oftener if the season is wet. In fact, plowing may profitably be begun as soon as a crop is removed the preceding year.

In the intervals between plowings the ground should be cultivated often enough to prevent all leaf growth. The spring tooth harrow makes an excellent tool for this purpose, but any exposure of the roots to the hot winds and glaring sunshine of summer rapidly kills them.

This following method is more certain to result in complete eradication than any other which has been tried. It gets rid of the weeds with one year's work. The thorough cultivation of the soil leaves it in splendid condition, so that a much larger crop can be obtained the following year than would have been possible had the weeds remained, and the field will continue to bear good crops after the weeds are eliminated.

Where the Quack grass or thistles are to be removed while a crop is being raised, plowing should begin in the summer or autumn as soon as the former crop is removed, the earlier the better. This should be followed by careful cultivation until the ground freezes up. The next spring plowing should be done as soon as soil conditions permit and be continued at intervals of four weeks until the first of July.

Between the plowings thorough cultivation should be practised. On the date mentioned the seed bed should be carefully prepared and the land sown to millet or buckwheat at the rate of three pecks per acre in either case. The previous treatment will have so weakened the weeds that the millet or buckwheat gets well established before the weeds recover sufficiently to begin growth. Both of these crops grow rapidly and provide a dense shade underneath which the weeds cannot survive.

Spraying to Kill Wild Mustard. The eradication of farm weeds by spraying with weed killing solutions has been the subject of special investigations by the Wisconsin experiment station for several years. Experiments with the iron sulphate solution were begun in 1906 and successful results were secured in the eradication of wild mustard and in the partial control of other weed pests.

The iron sulphate solution is prepared by mixing 100 pounds of granulated iron sulphate with 50 gallons of water and stirring thoroughly. This solution is sufficient to treat one acre of land infested with wild mustard. A specially adapted sprayer is necessary to apply the solution. Such machines are now to be found upon the market at moderate prices.

Fifteen to 25 acres can be sprayed daily and a single application of the solution will kill all of the wild mustard if applied at the right time. The spray is most effective if applied when the younger plants are in the bud and the older plants in the third leaf. Weather conditions should be favorable, as rains wash off the solution, making it ineffective.

THE CAPITAL OF ECUADOR

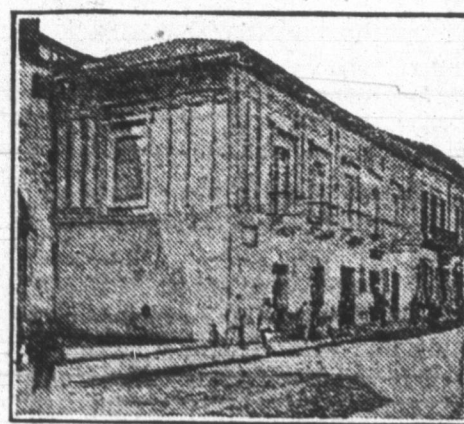


PART OF QUITO AS SEEN FROM A NEAR-BY HILL

HOW would you like to live in some fairy land that always enjoyed the glorious climate of Indian summer, that season of ethereal mildness which places the genuine spring in the second place? Such is the climate of Quito, the capital of Ecuador, which lies but a few miles south of the equator. It is situated among the most magnificent peaks of the lower Andes at an altitude of more than 9,000 feet, and the effects of its proximity to the equator are so modified by this that the climate is probably the most spring-like in the world. In Quito they have perpetual Indian summer, glorious sunshine, soft tempered breezes, and only occasionally the violent rainstorms which so thickly intersperse the year in the northern hemisphere. These delightful conditions have charmed Mrs. William C. Fox, wife of the United States minister to Ecuador, who says of the picturesque southern capital:

"We have lived in Quito during the transition period, and have seen it passing from one of the most picturesque old Spanish cities into a modern municipality. My first journey to the capital of Ecuador was made on a burro. It required several days, and though it has magnificent scenery and life in the interior is most interesting, yet I leave it to any woman of my acquaintance if the experience would be relished more than once. Now the railroad has penetrated the mountains and comes direct from the seaport of Guayaquil to Quito. With the railroad, of course, have come all the progress and change incident to it all over the world. But Quito still retains its ancient charm, though it is taking on some of the less attractive features of modern civilization. The streets have long been lighted by electricity, but it has been until now a city of two-story houses. There are plans afoot to begin a new residential addition in the west side, and no doubt the high offices and nine-story apartment house will follow in time.

"The charm of Quito is the poetic atmosphere which envelops the plainest phases of life. Everyone takes the world at his leisure, and there is time to enjoy everything. The homes are after the old Spanish type, which is so emphasized in the Latin-American cities. The houses are all of adobe built in a square and facing a court, and invariably of two stories only. But the average Quito residence is



"Liberty House," Quito.

somewhat different in that seldom can a lessee obtain the use of the ground floor, even for stables or for storage and the servants. Under the American legation are several shops, and every foreigner and the state officials also reside in the same style. The entrances to all the homes are under a great archway removed from the immediate proximity of the shops, and as nearly all the residence is on the second floor, the guest gains access



THE FRANCISCAN CONVENT IN QUITO

through a beautiful stairway lined with palms and gay with flowers. There are humming birds about, and the patio, as the court is called, is alive with butterflies, with the warbling of birds and the soft drone of insect life, as though it were in the center of a tropical forest. The other corridors of the second floor are a succession of beautiful rooms open to the sunny day on one side and hemmed in with palms and rich flowering trees on the other three. We live in these open places, for Quito has none of the strength-devouring qualities of other tropical cities. Planos and all sorts of musical instruments are about, we have to partake of all except the most ceremonious meals in this, environment of birds and flowers.

"Like all of their race, the women of Ecuador are hospitable and enjoy intercourse with each other and with properly presented strangers. The residents are devoted to dancing, and this



William C. Fox.

delightful exercise is not confined to the younger coterie as in American cities. In the United States only the waltz and two-step prevail at balls, and this is rather strenuous for those who have passed the heyday of youth. The Latin delight in the stately quadrille and various graceful adaptations of the lancers and minuet. The young girls and youths are splendid dancers, and frequently entertain a company by a solo with castanets and with tambourine. There are dances which are common to the country, and when a distinguished Peruvian is a guest, it is considered quite a delicate courtesy to have his special dance performed. The Ecuadorian dance is very pretty after the fandango style and danced without castanets.

Considerable talent in painting, the fine arts and literature is ascribed the Quitenos and the women enjoy a high reputation for beauty. The city was from remote antiquity the capital of the Quitus, a semi-civilized race kindred to the Quichuas or Incas of Peru, and the valley of Quito, next to the valleys of Mexico and Cuzco, was the seat of the earliest American civilization. The mass of the inhabitants are still of the same race, though they have adopted Christianity and the Spanish language. The modern city of Quito was founded by Sebastian Benicazar in 1534.

A Drawback.

"There is one serious disadvantage in taking up aviation as a profession."

"What is it?"

"That it always involves a comedown in the world."

BUZZ THAT PUZZLED ANIMALS

Noise of Wind in Telegraph Wires Used to Mislead Them, But They Have Grown Wiser.

When telegraph poles were first set up they had a most disquieting effect upon various species of animals. In Norway, for instance, at the time of the introduction of these useful articles, the bears were much perplexed to determine their purpose.

The Norwegian bear, hearing the moaning of the wind in the wires, such a buzzing as he had somewhere heard before, proceeded in the ursine fashion to "put two and two together." Such a buzzing must mean the presence of a sweet morsel; the poles must be gigantic hives; so the bear set to work to root the poles out of the ground.

The strange humming also attracted the attention of the woodpeckers, which concluded that innumerable insects were concealed in these tall poles. Therefore the birds went to work to find the treasure, boring holes to extract the insects.

In time, however, they all became wiser, and the telegraph pole or wire came to be used by more than one species of bird as a safe place for its nest. There is a small bird of Natal that used to build its cradle shaped nest in the branches of trees, but as soon as the telegraph wires were set up it changed the location of its housekeeping and built on the wires, so that snakes could not molest its treasures.

The new position was found so secure that the bird added a second door to the nest, which had hitherto possessed only a small opening on the side furthest from the overhanging branch.

For many years the buffaloes of our western plains utilized the telegraph poles to "scratch their backs," and so delightedly would a group of them attack the poles for this purpose that many of the big sticks were put out of commission.

Art Rubbish.

Duchess de Choiseul-Fraslin (formerly Mrs. Hamilton Paine of Boston) has had a good deal of trouble over the gallery of bogus "old masters" that she bought from the bogus Count d'Aulby.

"The duchess, even while in Boston," said a Boston art dealer, "bought a good deal of art rubbish. Her kind heart caused her easily to be taken in."

"There was a young impressionist who sold her a lot of daubs for fifty to sixty times their real worth. This chap was quite a lion for a time. He wore a velvet jacket and prided himself on his pictures' unintelligibility. At one of his studio teas a lady paused before an enormous canvas that looked more like a pink and gray fog than anything else.

"It's awfully pretty," the lady said, 'but—er—what is it a picture of?"

"The artist studied his production closely. Then he frowned and shook his head.

"By Jove, I can't remember," he said."

"Conscience-Money" to Vienna.

"Conscience money" to the amount of \$25 was received by a Vienna bank at Christmas from an Austrian who emigrated to America more than sixty years ago. It was formerly the custom for apprentices to call at Christmas time on the firms with which their masters dealt for trifling presents. The old emigrant in a letter explained that he cheated the bank in question by calling twice for a Christmas gift, disguising himself on his second call in a shoemaker's apron. He duly received a second present of a florin. The act has so weighed on his conscience ever since that he decided this Christmas to repay the florin to the bank, together with interest for sixty years. The bank manager has given the \$25 to charity.

Toys Alike Through Ages.

In the graves of ancient Peru have been discovered spinning tops almost identical in shape with the ones used at this modern age. In China was made a discovery of a top almost exactly like the one found in Peru, and scientists are at a loss to understand how these little articles could have been so much alike, and yet be found in centuries so far apart. It has been estimated that toys are at least 3,000 years of age. Old Egyptian toys have been found which show that they were arranged on wheels, much as the toys of today are made. Toys, very much alike in all particulars, have been discovered in all parts of the globe, and their age dates back into the thousands of years.

The Motorman's Lament.

Barney Oldfield, at the dinner in honor of his victory over Jack Johnson at Sheepshead Bay, told a number of automobile stories.

"But my best story," said the famous racer, "is about a taxicab chauffeur. This chap, was discharged for reckless driving, and so became a motorman on a trolley line.

"As he was grumbling over his fallen fortunes a friend said: 'Oh, what's the matter with you? Can't you run over people just as much as ever?' 'Yes,' the ex-chauffeur replied, 'but formerly I could pick and choose.'"

Stronger Weapon.

She—They say that an apple a day will keep the doctor away.

He—Why stop there? An onion a day will keep everybody away.—Tit-Bits.

LETTERS OF DICKENS

LAST ONE HE WROTE WAS SHAKY AND SIGNED "C. D."

Signatures of the Famous Novelist on Business Epistles Almost Invariably Were Accompanied by a Flourish That Showed Ego.

The last paragraph of the last letter written by Charles Dickens reads: "But I hope I may be ready at three o'clock. If I can't be, why, then I shan't be. Ever affectionately, "C. D."

This was written an hour or so before the fatal seizure. Every word droops below the level from which each starts, each line of writing descends across the page, the simple C. D. is very shaky, and the whole letter is broken and weak. Charles Dickens was not "ready" at "three o'clock"—he died at ten minutes past six p. m.

This last signature of the novelist is one of fifty-five reproduced in the Strand in an article by John Holt Schoelling. Among them is a very famous signature, the original of which is on a great parchment called "Deed of License Assignment and Covenants Respecting a Work Called 'The Pickwick Papers,'" and which, after a preamble, contains the words: "Whereas the said Charles Dickens is the author of a book or work entitled 'The Posthumous Papers of the Pickwick Club,' which has been recently printed and published in twenty parts or numbers," etc.

It is probable that the fact of the seal being placed between "Charles" and "Dickens" prevented the flourish which almost invariably accompanied his signature on business documents; the marked enlargement of this signature takes the place of the flourish and shows an unconscious emphasis of the ego. It would be almost unreasonable for us to expect that so impressionable a man, who was also feeling his power and fame, could abstain from showing outward signs of his own consciousness of abnormal success. Yet in the private letters of Dickens the simple "C. D." is very frequent.

It may at once be said that this point of difference is alike interesting to the student of gesture and to the student of Dickens' character. He was certainly a very able man of business, and the wording of his business letters fully bears out the idea conveyed by his business signature—so to speak—that Dickens was fully aware of his own powers, and that, quite fairly, he did not omit to impress the fact upon other people when he thought fit. Both the wording and the signature of many of his private letters are simple and unostentatious to a high degree. This curious fact ought to be remembered when people talk about Dickens' "conceit" and "love of show."

That Did It.

"The hardest audience in the world to play to is an audience of typical first-nighters," said the theatrical manager. "The first-nighters are mostly deadheads, and those who pay their way are of the blaze type, hard to enthrall. I have in mind one man in particular who never misses a first night, and who, to hear him talk, gets about as much enjoyment out of it as he would out of an attack of mumps. I put on a comedy last season that was one of the big money makers of the year. The first-night audience regarded it as mourners attending the obsequies of a dear departed. I met this particular one I speak of in the lobby after the performance.

"Well, what did you think of it?" I said. "Pretty funny, eh?"

"One of the funniest things I ever saw," he admitted. "In fact, it was so funny I had to read the jokes on the programme to keep from laughing."

Developing a Character.

The late Frances E. Willard said: "There are so many kinds of beauty after which one may strive that we are bewildered by the bare attempt to remember them. There is beauty of manner, of achievement, of reputation, of character; any one of these outweighs beauty of person, even in the scales of society, to say nothing of celestial values.

"Cultivate most of the kind that lasts the longest. The beautiful face with nothing back of it lacks the staying qualities that are necessary to those who would be winners in the race of life. It is not the first milepost but the last that tells the story; not the outward-bound steed but the one on the home-stretch that we hail as victor."

Insurance Against Hall.

The Canadian province of Alberta continues its popular plan of insuring crops against hail. The latest annual report of the territorial department of agriculture shows that in the year 1909 246,909 acres of farming land were fully covered by this form of insurance, and 48,732 acres were partially insured. The rate varies from 20 to 40 cents an acre. The total premiums collected amounted to \$84,869, and the total indemnities paid to \$152,060.—Scientific American.

Breaking into the Limelight.

"Consulted with one of our most fashionable physicians recently," announced the veterinarian.

"How did it happen?" "A society woman's pet poodle was sick. The doctor issued hourly bulletins and I administered the dose."



A Canada thistle, showing the horizontal root from which it spreads.

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