

## The Farm.

## Weeds.

Means by which weeds are distributed:—

1. Grain imported from other districts.
2. Animals transplanting seeds attached to their bodies.
3. The nature of seeds aids greatly in their distribution; some plants bear great numbers, e.g., purslane, thistle; some possess great vitality, e.g., mustard may be buried fifty years and yet germinate; some have forms well suited to aid in spreading rapidly—burrs, dandelions, etc., whose seeds can be readily carried long distances by the wind.
4. Threshing machines often carry seeds from one farm to another.
5. Manure from city stables.
6. Renting farms aids to some extent in spreading weeds, especially where the tenant is utterly careless as regards the condition in which he will leave the farm when his lease is up.

Classification of weeds based on the nature of their roots:—

1. Annuals complete the period of their existence in a year; they generally have fibrous roots (see fig. 1), and produce many seeds; when young they are weak and tender, consequently they are more easily destroyed at this period. If annuals are kept from seeding we must soon get rid of them. In some the seeds are very hardy, and possess great vitality, often reappearing when you think all danger is past—wild oats, twenty years old, have germinated.

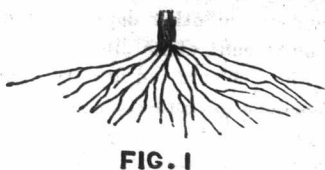


FIG. 1



FIG. 2



FIG. 3

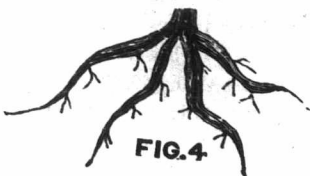


FIG. 4

Examples:—Shepherd's purse, mustard, penny cress, cockle, wild oats, lamb's quarters, climbing buckwheat, chess, foxtail, groundsel, purslane, ragweed, chickweed, mayweed, sow thistle, pigweed, red root, pepperwort, false flax, small burr.

2. Biennials complete their growth in two years, the first being spent in storing up food, usually in a taproot (see fig. 2), for the production of seed in the second. Unless these plants are cut below the surface, cutting increases their vigor and intensifies the trouble.

Examples:—Wild carrot, blueweed, burdock, mullein, coarse burr, bull thistle, teasel, evening primrose.

3. Simple perennials continue growth from year to year (see fig. 3), and will reappear till the root is utterly destroyed. Some of the hardest weeds are in this group:

Examples:—Ox-eye daisy, mallow, sorrel, plantain, St. John's wort, bladder campion, chicory, dandelion, golden-rod, vervain, motherwort, common campion.

4. Creeping perennials embrace some of the worst weeds we find. Their reproduction by seed is less to be dreaded than by root. The root is apparently jointed (see fig. 4), each joint capable of growing, if separated. Continual cultivation and smother, so as to exclude light, are necessary to destroy plants of this class.

Examples:—Couch grass, Canadian thistle, toad-flax, milkweed, sow thistle (perennial form), yarrow and bindweed.

General rules for the destruction of weeds:—

1. Never allow weeds to seed. This will certainly kill out the annuals.
2. Cultivate the land thoroughly, especially when the weeds are young and tender.
3. Keep the roadsides and fence corners clean.
4. Never allow weeds to have the benefit of sunlight, especially the perennials. The absence of light will certainly result in death to the plant.
5. In dealing with biennials, cut them well below the surface.
6. Cut the weeds at a time unfavorable for growth, either in the condition of the plant or the weather.
7. Secure, as far as possible, the co-operation of fellow farmers.

The principles involved in these rules will be carried out to a great extent where a system of farming is followed in which green manuring, hoeing, soiling and summerfallowing are leading factors. If such a course is adopted there is no doubt but clean fields will result, and much better returns be obtained. All weeds must perish either by cutting, rooting or smothering, if done in a proper way and at the proper time.

## ANALYSES OF WEEDS.

Weeds furnish us with a knowledge of the soils in which they grow, and what useful elements they take from the soil at the expense of other plants among which they are found. A chemical examination of weeds shows great diversity in their composition, as seen in the following tabulated statement:—

|               | Ash. | Silica. | Sulph. Acid. | Phos. Acid. | Potash. | Soda. | Lime. | Magnesia. | Alumina. | Iron. |
|---------------|------|---------|--------------|-------------|---------|-------|-------|-----------|----------|-------|
| Blueweed.     | 4.09 | 4.9     | 2.2          | 2.8         | 16.6    | 1.4   | 22.4  | 3.5       | 3.6      | 5.1   |
| Purslane.     | 1.53 | 3.48    | 3.2          | 5.2         | 30.9    | 3.5   | 10.7  | 9.5       | 4.9      | 5.4   |
| Ragweed.      | 1.93 | 3.16    | 8.0          | 7.9         | 31.4    | 8.3   | 33.8  | 11.7      | 1.4      | 4     |
| Mullein.      | 1.01 | 3.28    | 7.3          | 6.1         | 50.1    | 3.3   | 19.0  | 5.5       | 1.15     | 1.01  |
| Dock.         | 1.50 | 4.3     | 8.3          | 7.0         | 52.6    | 7.2   | 3.6   | 3.4       | 45       | 4     |
| Dandelion.    | 1.99 | 4.3     | 41.9         | 21.4        | 2.9     | 14.3  | 11.9  | 2.7       | 2.7      | 2.7   |
| Cockle.       | 2.4  | 2.4     | 7.2          | 22.9        | 29.3    | 6.1   | 1.2   | 1.2       | 1.2      | 1.2   |
| Buttercups.   | 5.2  | ...     | ...          | ...         | ...     | ...   | ...   | ...       | ...      | ...   |
| Ox-eye Daisy. | 6.4  | ...     | ...          | ...         | ...     | ...   | ...   | ...       | ...      | ...   |
| Plantain.     | 2.6  | ...     | ...          | ...         | ...     | ...   | ...   | ...       | ...      | ...   |
| Pigweed.      | 1.36 | ...     | ...          | ...         | ...     | ...   | ...   | ...       | ...      | ...   |

From the above we can see that weeds gather phosphates and alkalis from the soil in considerable quantities, and thus rob useful plants of their food.

## The Clover Hay Worm.

The Ohio Experiment Station reports the ravages of an insect which has not made its appearance in any part of the Dominion as far as we have learned. In bulletin No. 52 an officer of the Station, writes:—"Clover hay that has been standing in the mow or stack for some time is liable to become infested by small, brown worms, which web the dried stems and leaves together and feed upon them. In one case, to which the attention of the Station was called this spring, the lower half of the stack of clover hay was almost totally destroyed by this worm."

"These worms are more likely to prove troublesome when old hay is left over from season to season for them to breed in; consequently hay mows should be thoroughly cleaned out each summer, and new stacks should not be put on old foundations until all the leavings of the previous season are removed. Hay which is infested with the worms should be burned."

## Mr. W. C. Edwards

APPOINTED A MEMBER OF THE BOARD OF THE AGRICULTURE AND ARTS ASSOCIATION.

Just as we go to press, we learn that Mr. W. C. Edwards, of Rockland, Ont., is appointed to fill the vacancy on the Board of the Agriculture and Arts Association caused by the death of Mr. Ira Morgan. This appointment is a most happy one. Mr. Edwards is a very suitable man in every respect. His appointment will strengthen the Agriculture and Arts Association very materially. The Hon. Mr. Dryden could not have made a better choice.

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## Tanning Hides with the Hair On.

Gentlemen,—Will you tell me how to tan hides so as to retain the hair. I wish to do the work myself.

S. K., Lansing, Ont.

We have found the receipts given in Dr. Chase's book good; we therefore give following selected therefrom.

## TANNING SHEEPSKINS, ETC., APPLICABLE FOR MITTENS, DOOR MATS, ROBES, ETC.

For mats, take two long-wooled skins, make a strong soda, using hot water; when it is cold enough wash the skins in it, carefully squeezing them between the hands to get the dirt out of the wool; then wash the soap out with clean cold water. Now dissolve alum and salt, of each half a pound, with a little hot water, which put into a tub of cold water sufficient to cover the skins, and let them soak in it over night, or twelve hours, then hang over a pole to drain. When they are well drained, spread or stretch carefully on a board to dry. They need not be tacked if you will draw them out, several times, with the hand, while drying. When yet a little damp, have one ounce each of saltpetre and alum, pulverized, and sprinkle on the flesh side of each skin, rubbing in well; then lay the flesh sides together, and hang in the shade for two or three days, turning the under skin uppermost every day, until perfectly dry. Then scrape the flesh side with a blunt knife, to remove any remaining scraps of flesh, trim off projecting points, and rub the flesh side with pumice or rotten stone, and with the hand; they will be very white and beautiful, suitable for a foot mat, also nice in a sleigh or wagon of a cold day. They also make good robes, in place of a buffalo if colored, and sewed together. And lambskins (or sheepskins, if the wool is trimmed off evenly to about one-half or three-fourths of an inch in length), make most beautiful and warm mittens for ladies and gentlemen.

## TANNING FUR AND OTHER SKINS.

First.—Remove the legs and other useless parts, and soak the skin soft; then remove the fleshy substances and soak in warm water for an hour; low:

Take for each skin, borax, saltpetre, and glauber salts, of each  $\frac{1}{4}$  oz., and dissolve or wet with warm water sufficient to allow it to be spread on the flesh side of the skin.

Put it on with a brush, thickest in the centre or thickest part of the skin, and double the skin together, flesh side in, keeping it in a cool place for twenty-four hours, not allowing it to freeze, however.

Second.—Wash the skin clean, and then: Take sal-soda, 1 oz.; borax,  $\frac{1}{4}$  oz.; refined soap, 2 ozs. (Colgate's white soap is recommended as the best, but our "White Hard Soap" is the same quality); melt them slowly together, being careful not to allow them to boil, and apply the mixture to flesh side as at first—roll up again and keep in a warm place for twenty-four hours.

Third.—Wash the skin clean, as above, and have saleratus two ounces, dissolve in hot rain water sufficient to well saturate the skin, then:

Take alum, 4 ozs.; salt, 8 ozs.; and dissolve in hot rain water; when sufficiently cool to allow the handling of it without scalding, put in the skin for twelve hours; then wring out the water and hang up for twelve hours more to dry. Repeat this last soaking and drying from two to four times, according to the desired softness of the skin when finished.

Lastly.—Finish by pulling, working, etc., and finally by rubbing with a piece of pumice stone and fine sandpaper.

This works admirably on sheepskins as well as on furskins, dog, cat, or wolfskins also making a durable leather well adapted to washing.

A man paid fifty dollars for this recipe, and has made his money out of it many times. It is very valuable.