

FARMER'S ADVOCATE

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AND HOME MAGAZINE

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THE FARMER'S ADVOCATE —AND— HOME MAGAZINE.

WILLIAM WELD, Editor and Proprietor.

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Published in the Dominion.

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Our Prize Essays.

The prize of \$10 given by a farmer, a subscriber to this paper, for the best essay on "the benefit derived by farm crops from the application of salt," has been won by Mr. James Shannon, Wolverton, Ont.

The prize of \$5 for the best essay ON THE SEEDING AND MANAGEMENT OF PERMANENT PASTURES, has been awarded, and the essay and the name of the winner will appear next month. A prize of \$5 will be given for "the best collection of drawings and descriptions for making home-made, labor-saving implements for the farm." Drawings, etc., to be in this office by the 10th May. No prize for any patented implements, nor for less than three implements.

A sample copy will always be forwarded to any intending subscriber.

On account of the great pressure on our columns a number of able and interesting original articles and considerable correspondence is unavoidably laid over until next issue.

Agents are wanted in every County in the Dominion, to whom liberal cash commission will be given. Good pushing and intelligent farmers' sons, who have read and know what the ADVOCATE contains, and its value to every agriculturist, can earn an excellent salary by engaging at this honorable and useful business for a few months, as opportunity occurs.

The Month.

The weather during the past month has been anything but desirable for the advantageous prosecution of farm work. The weather has alternated between frosty nights and sharp windy days. But little seeding has been done at the time of writing, and those who have got any grain sown have done so merely to get the work out of the way. The season is of necessity backward, as there has been no growth in the ground. Fall wheat has suffered severely by the alternate freezing nights and sunny days during April, and on badly drained and impoverished soils a great quantity is killed out. However, we have seen some excellent pieces on dry, well cultivated lands, and at this time of the year we never saw the plant looking better.

The clover now shows plainly the injurious effects of the winter's frosts, and taking it all around we do not think there will be half a crop the country over. In many places the people are wisely ploughing up and preparing to put in some other crop.

The numerous sales of live stock have been well attended, and there is a decided upward tendency in good dairy stock, especially those of good grade milking strains. First-class thoroughbred Shorthorn stock has been in keen demand during the month, and good sales have been made of good animals.

Horses still continue to command high prices for foreign shipment, and for the home market. The various shows held last month brought out a fine display of imported entire horses, especially draughts for the coming season.

The movement to the North-West from rural districts has continued unabated all the month. The severe weather and violent snow storms made it rough work for those who immigrated to the lone land during April.

Prize Essay.

THE BENEFIT OF SALT AS A FERTILIZER AND FERTILIZING AGENT.

The use of salt for fertilizing purposes is a comparatively new feature in Canadian agriculture, although it has long been employed in Great Britain for this purpose. Chemists have agreed upon this fact, that salt enters into the composition of all plants. Hence its necessity in situations remote from the ocean, which are not reached by saline vapors. Salt is not so much a fertilizer as an agent in the work of fertilization. It is, however, absorbed in small quantities into the plant; of this we have undoubted evidence in the fact that straw grown upon salted land will have the saline taste quite perceptible in its joints and at the base of the stalk. This I have noticed more particularly in barley straw, such being relished and eagerly taken by cattle in preference to that from unsalted land. Salt acts in several ways on the land; it attracts moisture from the air and gives it to the soil; it retains ammonia for the use of the plant instead of letting it evaporate (?) It also acts as a

solvent, dissolving the ingredients of the soil, thus fitting them for plant food. In the spring of '79 I carefully conducted an experiment upon a field of barley. The soil was a sandy loam which had been plowed the previous autumn and was in uniform condition. Previously to sowing the salt, which was done before cultivating (and we think this the best time to sow it, as all stirring of the soil tends towards its equal distribution), I staked off two strips, ten yards in width, the length of the field. One of these was left without salt, the other received 400 lbs., and upon the remainder of the field we put 200 lbs. per acre. After this all was worked alike and sown with barley on the 21st of April. Through the growing season I was unable to note any difference in this crop, but as it matured the difference was strikingly apparent in favor of the salt.

In summing up its advantages we have from three to four days' difference in ripening, stiffness and brightness of straw, grain very bright and 1½ to 2 pounds a bushel heavier than that from the unsalted plot. I could not, however, notice any difference in favor of 400 lbs. per acre over 200 in any respect—leading me to believe that 200 lbs. per acre is sufficient to meet all requirements of a grain crop. The unsalted strip was soft in the straw, and badly discolored at the time of cutting, while a very marked difference remained in the stubble long after harvest. I have since that time experimented upon wheat, oats, turnips, potatoes and clover; the two former showing results similar to that of the barley above referred to. The use of salt upon the turnip and potato crop with us has been very beneficial, causing a more vigorous growth, which, we think, in the case of turnips is of great advantage in avoiding long exposure to the fly, and in being ready to thin four or five days earlier. They require a larger allowance of salt than grain crops. We would apply not less than 450 or 500 lbs. per acre for these crops. We have always been able to trace the effects of salt upon grass lands; but we would in addition to 200 lbs. of salt apply 100 lbs. of gypsum. We are convinced by our observations and experiments that the effects of salt will be noticeable for three or four years, according to the nature of the soil. Where vegetable matter abounds its effects are greater, but of shorter duration, and vice versa. Hence we think it not necessary upon the same land every year; of this abundant proof may be seen in grain crops following turnips, where salt had been used in the quantities given above. We have noticed its effects repeatedly in this way, and have been unable to discern any special advantage from a fresh application. It is claimed by some writers that the yield of grain is often doubled by the use of salt. This we think very wide of the mark. From our standpoint of experience we would claim from ten to twenty per cent. directly. It is evident, however, that there are some indirect benefits accruing, such as the consolidation of light soils, the checking or prevention of insect depredations, and giving tone to the elements of the soil not otherwise attained. Different soils require different treatment, so also they require different amounts of fertilizing agents; light soils being deficient in the elements of plant food and naturally porous and dry, require larger amounts of salt than clay loams. We would recommend from 50 to 100 lbs. more.

JAMES SHANNON,
Wolverton P. O., Ont.