

# THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN  
THE DOMINION.

TWO DISTINCT PUBLICATIONS—EASTERN AND WESTERN.

PUBLISHED SEMI-MONTHLY BY  
THE WILLIAM WELD COMPANY (LIMITED).

EASTERN OFFICE:  
CARLING STREET, LONDON, ONT.

WESTERN OFFICE:  
MOISTYER BLOCK, MAIN STREET, WINNIPEG, MAN.

LONDON, ENGLAND, OFFICE:  
W. W. CHAPMAN, Agent, Fitzalan House,  
Strand, London, W. C., England.

JOHN WELD, MANAGER.

1. THE FARMER'S ADVOCATE is published on the first and fifteenth of each month.  
It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Canada.
2. TERMS OF SUBSCRIPTION—\$1.00 per year *in advance*; \$1.25 if in arrears; sample copy free. European subscriptions, 6s., or \$1.50. New subscriptions can commence with any month.
3. ADVERTISING RATES—Single insertion, 30 cents per line. Contract rates furnished on application.
4. DISCONTINUANCES—Remember that the publisher must be notified by letter or post-card when a subscriber wishes his paper stopped. All arrears must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post Office address is given.
5. THE ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.
6. THE LAW IS, that all subscribers to newspapers are held responsible until all arrears are paid and their paper ordered to be discontinued.
7. REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.
8. ALWAYS GIVE THE NAME of the Post Office to which your paper is sent. Your name cannot be found on our books unless this is done.
9. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
10. SUBSCRIBERS failing to receive their paper promptly and regularly will confer a favor by reporting the fact at once.
11. NO ANONYMOUS communications or enquiries will receive attention.
12. LETTERS intended for publication should be written on one side of the paper only.
13. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the Advocates, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or  
THE WILLIAM WELD COMPANY (LIMITED),  
LONDON, CANADA.

## Importance of Cultivation.

Occasionally a spring and summer season is experienced in which rain falls sufficiently often and in sufficient quantity to keep the farm crops growing steadily, the root and corn and other hoed crops requiring only such cultivation as is necessary to keep the weeds under subjection, while the crops develop and mature satisfactorily with little extra labor. Such seasons, however, are exceptional, and in many sections, in perhaps five out of six years, there are times in the summer season when drought prevails for periods of from two weeks to two months, with very little relief in the way of showers. This being the case, it is not wise to wait for possible rains, which are uncertain, and prudence exhorts to keeping the weeder, horse hoe or cultivator going at least every two weeks in the corn and root crops, and also in orchard and garden, for the purpose of conserving for the use of the growing crops what moisture has been stored up in the land in the spring, and preventing its evaporation and escape into the atmosphere without first having fulfilled its proper mission of feeding the crops.

To put off from day to day the cultivating of the crop in the hope that it will rain, may, and probably will in five out of six seasons, prove to have been a mistake, as the longer it is delayed or neglected the more will the crop be checked in its growth and the harvest yield lessened, making all the difference between a profitable and paying crop and an unprofitable and inferior one. The great value of surface cultivation comes from the conser-

vation of moisture by arresting evaporation, which goes on rapidly when a crustlike surface is allowed to form and remain. The object should be to make the water, which seeks to escape by evaporation, pass through the plants, and as the elements of fertility in the soil can only be used by the plants in a state of solution, it is readily seen how important it is that sufficient moisture be maintained in the land to dissolve these elements and carry them up through the roots, stalks and leaves, that they may be appropriated and used by the growing crops to best advantage. It is well known that where the land is mulched by the use of straw or rubbish of any kind, or by being covered with boards or rails, the moisture has been kept in. It is on the same principle that moisture is retained where a soil mulch is formed by keeping the surface frequently stirred, and the drier and looser this mulch, the more effective it is, as it then successfully breaks what is called the capillary connection between the air and the under soil, having the effect of interposing what is practically a foreign body between the atmosphere and the damp earth below. So long as this mulch remains loose it serves the purpose intended, but when left unmoved for a considerable time it gets closer and less effective, and especially so after a shower, when a crust is again liable to form. It is essential, then, that as soon after a shower as the land is dry enough to work well, it should be stirred and loosened again, as by this means the largest possible portion of the moisture will be secured to the growing crop. The cultivation for this purpose need not be more than three inches deep, but should be that depth for best results. In a dry time, cultivation should be repeated every ten days,



PAIR OF CAVALRY HORSES.

Selected by Lt.-Col. Dent, at London, Ont., for the British Army. Sire, German Coach, Graf Bremer. Dam of one, Trotting-bred Highland Boy; dam of other, Black Hawk Morgan. Height, about 15.2 hands. Weight, about 1,000 lbs. each. Price, \$280, the pair.

as nearly as practicable, and experience has taught that there is no special advantage in more frequent working of the soil. For the corn crop, a stroke of the harrow before or just when the shoots are appearing will generally do great good by killing young weeds, admitting the air and forming the earth mulch, and the harrowing may sometimes be advantageously repeated until the plants are six inches high. The first cultivations, while the roots have not extended far, may be four or five inches deep, but as the crop grows older, the cultivation should be shallower, else many root fibers may be cut off and the development of the crop hindered.

This question of the retaining of moisture in the land does not seem to be as generally understood and appreciated as its importance warrants, judging from the fields one sees in travelling through the country, plowed and left in unbroken furrows for days, or it may be weeks, to dry out and bake under the action of the sun and wind, instead of being rolled and harrowed immediately after being plowed, or within a day or two, and harrowed or cultivated after each rain to keep the moisture in the land to assist in decomposing weeds, grasses or roots of these which may have been plowed down, and to break up the soil, rendering it fine, and, hence, in the best condition to feed the coming crop when sown. The man who wrote "tillage is manure" was practically about right, as it has largely the same effect.

## Failures in Beet Sugar Enterprises.

While the successful development of the sugar-beet industry has been in many respects phenomenal, there have been failures both in the field and in the factory, and if close heed be not given to the lessons of the past, some of these are likely to be repeated. We are satisfied that in perhaps no other industry is a strict and intelligent attention to every detail more imperative. We are struck with this point in looking over a recent volume on this subject, to which reference is elsewhere made in this issue, and which will repay perusal. The author (Mr. Hamburger), in reviewing the history of the industry in the United States, refers also to the efforts made some years ago to establish factories in the Dominion of Canada. He points out that, notwithstanding the fact that the Government encouraged the industry by subsidy, the factories established early in the '80's at Farnham and Berthierville, in the Province of Quebec, proved financial failures. The Berthierville plant was removed to Eddy, New Mexico, in 1896, and the Farnham plant, the following year, to Rome, N. Y. The same causes which had led to failures in the United States—viz., lack of capital, indisposition of farmers to raise beets, and mismanagement of the factories—brought about the same results in Canada. He states that the question of bounties has been agitated more or less in almost every State in which beets may be raised, but with the exception of Minnesota, New York, Pennsylvania, and Washington, no other State has a bounty law, and so far as the foregoing four States are concerned, both the amount of the bounty and the time during which it is to be paid are limited. The fact that Minnesota has but one factory, New York only two, and Pennsylvania none, would seem to show that a bounty law is, after all, not the important factor which some have contended. It seems pretty well conceded that in general there is no need of artificially fostering the industry, though bounty-hunters are still carrying on their agitation in many States. In fact, the real progress of the industry is thought to have been hindered by the campaign for bounties. The European export bounty system has become a notorious source of trouble, both for its intended beneficiaries and its dispensers, and for several years strenuous efforts have been made to abolish the system, but the wrong course having been taken, it is not so easy to abandon or correct it, even after evil consequences are recognized, for the reason that the State has pledged itself to certain obligations, upon the strength of which the industries, to some extent, depend. Mr. Hamburger, however, concedes that so long as the bounty law which gives so much per pound to the beet-grower and sugar manufacturer is meant as an inducement to encourage home production and give the industry a fair start, with properly-safeguarded provisions to attain that end only, then the dangers which otherwise lurk in it may be obviated. The Ontario Government would appear to have been guided upon this principle in the temporary bounty system which they have adopted. We are convinced that the permanent establishment of the industry must depend not upon national legislation or state aid, either of which at best can only be temporary, but upon the joint efforts of the beet-grower and the manufacturer. In the former's field the sugar is formed and accumulated, and in the factory it is extracted and put into marketable form. The basis of a good paying factory is a sufficiently large supply of beets of the highest possible quality and purity to suit the capacity of the factory, an abundant supply of pure water, an adequate supply of fuel (coal, coke, etc.), a supply of limestone of suitable quality, up-to-date machinery, labor at reasonable figures, good transportation facilities, a market in which to dispose of the product and its by-products, and last, but not least, ample capital.

## Summer Fair Dates.

|                           |                   |
|---------------------------|-------------------|
| Edmonton Summer Fair..... | July 1 to 3       |
| Calgary.....              | July 10 to 13     |
| Yorkton.....              | July 15           |
| Wawanesa.....             | July 18           |
| Carman.....               | July 18 and 19    |
| Carberry.....             | July 18 and 19    |
| Virden.....               | July 18 and 19    |
| Portage la Prairie.....   | July 23 to 25     |
| Brandon.....              | July 23 to 26     |
| Minnedosa.....            | July 30           |
| Winnipeg Industrial.....  | July 29 to Aug. 3 |
| Oak River.....            | Aug. 6            |
| Neepawa.....              | Aug. 6 and 7      |
| Qu'Appelle.....           | Aug. 7 and 8      |
| Moosomin.....             | Aug. 9            |
| Regina.....               | Aug. 13 and 14    |
| Hartney.....              | Oct. 2            |