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E. B. CHAMBERS.

### Cattle Feeding Conditions

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sion on which is in-

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y of meat and produce  
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ne element advocates

increasing the supply, while the man who has a supply cannot sell it. The charge is made against the farmers that they do not supply the market with products of high quality. I am well aware that the farmer is delinquent in many respects by the produce he throws on the market. "Less quantity and more quality," would be a good motto to hang on every road allowance corner.

Man.

GEO. ARMSTRONG.

### Mr. Templeton's Feeding Stuff Bill

EDITOR FARMER'S ADVOCATE :

In a recent issue of the Winnipeg Free Press I saw it stated that the Hon. Wm. Templeman has introduced a bill into the Dominion Parliament, providing that all manufacturers of commercial feeding stuffs shall be compelled to register their product under a number, and to put on every package a guaranteed analysis of the contents, so that purchasers of the product may know what they are buying; and, with your permission, I purpose to offer a few remarks on the above subject for the benefit of the readers of the FARMER'S ADVOCATE.

Returning to the Canadian Northwest, to farm, after an enforced absence of eighteen years, I saw at once that this country still remained a happy hunting ground for the manufacturer of commercial feeding stuffs, and I therefore welcome Hon. Mr. Templeman's bill as a step in the right direction. While freely admitting this, however, I think I shall be able to show that the above bill will have to go very much further if it is to secure anything like adequate protection for the purchaser and user of commercial feeding stuffs.

Should the above bill become law, the manufacturer of compound feeding stuffs will have to put on each package a guarantee, showing the percentage of oil, albumenoids and carbo-hydrates which it contains; and he will have no difficulty in complying with the act, without giving or being compelled to give the purchaser value for money. Take the guarantee percentage of oil, for instance, and we shall find that it will work out as follows: Supposing a buyer to go to the expense of an analysis, he will most probably find that the feeding stuff actually does contain the percentage of oil guaranteed; and will doubtless arrive at the erroneous conclusion that he has received value for his money. The plain fact of the matter is that analysis of feeding stuffs will have to be carried out in quite a different way than they are at present, if they are to afford full protection for the purchaser. Supposing an analyst to find a certain percentage of oil in a feeding stuff, he at once gives the compound credit for that amount, never for one single moment, troubling himself as to the source from which the oil has been derived. To the analyst oil is oil, no matter whether it has been derived from linseed, cottonseed, rapeseed or palm-nut, to say nothing about the quantities of oil used in the manufacture of feeding stuffs, which has been derived from weed seeds. It is a well-known fact that the seeds of such weeds as charlock and the podded variety of wild mustard will remain sound in the soil for an indefinite period. In fact, cases are on record in England, where soil which had been laid down to pasture for a hundred years had borne a heavy crop of charlock and wild mustard on being broken up by the plow. As a matter of fact, the outer skin of the seeds of the above weeds is a veritable oil sheet; the seed being water-proofed, so to speak, by the large percentage of oil which this outer skin contains. Now, in England, at the present time, despite the provisions of the "fertilizers" and feeding stuffs Act," which provides that manufacturers of compound feeding stuffs shall stamp a guaranteed analysis of oil, albumenoids and carbo-hydrates on every package, the seeds of corn-cockle are a commercial article, being much more easily disposed of, in fact, at a price than good grain; and I know of at least one large grist mill that never grinds anything else. Were all oils of equal feeding value, there would be no reason at all why the manufacturers of compound feeding stuffs should not draw their supplies of oil from weed seeds: it is a well known fact, however, that such is not the case. The feeding value of any oil bears a direct relation to its drying properties; the higher the feeding value, the more quickly will it dry, and vice versa. This is the reason why linseed oil is used by painters for mixing paints. If, therefore, oils derived from various sources are painted upon glass, it will be found that linseed or cottonseed oil will dry much more quickly than mineral oil or oil derived from weed seeds, showing at once that the former have a much higher feeding value than the latter.

If, therefore, Hon. Mr. Templeman's bill is to be of any real service to the purchasers of compound feeding stuffs, it must not only provide for the registration of each particular product under a number, and make it compulsory for the manufacturer to put a guaranteed analysis of the contents upon each package, but it must compel the manufacturer to state the source from which the constituents guaranteed have been derived. At the same time, it should be made compulsory for analysts to at least differentiate betwixt oil from weed seeds, or any oil of low feeding value, and oil which has been derived from linseed or cottonseed.

In addition to the above let me say that until the average farmer educates himself sufficiently to enable him to calculate correctly the number of food units per ton which a compound feeding stuff contains, and to arrive at the exact cost per food unit, so that foods of various kinds may be compared; the manufacturer of compound feeding stuffs will always find a market for his products, and the farmer will continue, as at present, to pay a higher price for spiced food compounds than they are worth.

This letter has, however, run on to an inordinate length, and I therefore, propose, with the editor's permission, to defer the discussion of the method of arriving at and comparing food values to a future issue.

Rexboro,

"JETHRO TULL."

## FARM

Letters Upon Farming Operations Welcomed.

### Topics for Discussion

To afford an opportunity for the interchange of ideas, and to provide a place where information may be given and received, we will publish each week at the head of this department a list of topics, which our readers are invited to discuss. Opposite each topic is the date of publication of contributions on it and readers are reminded that articles contributed on any of the subjects given, must be in our hands at least ten days earlier than the subject is scheduled for discussion in our columns.

Readers will understand that this department of the paper is entirely and altogether their own. They are invited at all times to write the editor fully and freely expressing their opinion of the manner in which it is conducted. They are invited to suggest topics to be discussed. If any reader has in mind any question which he or she may think could be profitably discussed, it will be given a place in the order of subjects, if brought to the notice of the editor, and is of sufficient general interest. Because this notice runs weekly at the head of the Farm Department does not mean that farm questions, only, may be discussed. The discussions will be spread over every department of the paper.

For the best article received on each topic, we will award a first prize of Three Dollars and for the second best Two Dollars, paying the latter sum for other contributions on the subject received and published in the same issue. Article should not exceed 500 words in length.

#### ORDER OF SUBJECTS.

June 2.—What do you consider is the best method of using the time of the men and horses in the fields, on summer fallows, at haying and harvesting? Is it better to quit at 6 at all times or to work later?

June 9.—What is the best way to clean up a poultry house to rid it of vermin, and make the surroundings healthful. How do you make and apply the wash.

June 16.—Should cream be sent to a creamery either local or distant, or kept on the farm and be made into butter to be marketed wherever the price is best? Tell of a plan that is working satisfactorily.

### Dirty Land and Barley

R. S., Carberry, Man. writes :

"I have a field of very dirty land that I think of sowing to barley this spring, how would you treat it and when, do you advise me to sow the grain?"

A large number of our farmers are recognizing that a barley crop is one of the very best means of cleaning the land of noxious weeds and growing

a crop of grain at the same time. And if desired the previous years barn yard manure can be applied at the same time.

I would recommend to surface cultivate the land at once. A wide toothed cultivator is most suitable for this purpose. Work the soil crosswise of the land at first, then in a week or so cultivate or harrow lengthwise, killing a crop of weeds each time, and bringing a fresh supply of seeds near the surface to germinate and be killed in their turn. If it is intended to manure the land this may be done towards the end of May, and about June 1st the land should be plowed a fair depth and the barley sown at once, in fact it is so important that the barley seed be deposited in the damp soil that I would recommend that every day's plowing should be sown at the close of the day. A subsurface packer used directly after the plow, and before the harrow, will greatly assist in retaining moisture.

M. A. C.

S. A. BEDFORD.

### Questions on Rolling

H. D. writes from Burnside, Man. :

"I have some land I propose using for grain that was plowed last fall, it is very loose. Would you advise my rolling it and if so, when? Is before or after sowing best? Is it advisable to roll land when it is slightly damp?"

The better way is to use a sub-surface packer before the grain is sown, but perhaps you are not willing to go to the expense of buying a packer and the next best thing is to use a roller.

Where the soil drifts with the wind I would prefer to roll after the grain is an inch or two above the surface, this will prevent drifting and will not injure the young grain. At that time there is also more leisure. The roller should be run crosswise of the lands. Stiff soil when wet will often cake and cause the moisture to evaporate too quickly, but rolling light soil when slightly damp (not wet) will prevent it from drifting and the dampness will do no harm providing it does not stick too much to the roller.

M. A. C.

S. A. BEDFORD.

### Kaffir Corn

"What has been your experience with Kaffir corn? Is it equal to the ordinary fodder corn for the West? If not what varieties of corn would you recommend?"

Kaffir corn resembles millet more than it does the ordinary fodder corn. It has not given very good results with me and I would much prefer one of the early varieties of true corn. The following are among the best kinds for fodder purposes in the West, North Dakota, Flint, Long-fellow, and Compton's Early. All these sorts are fairly early and give good returns. They should be sown in rows 30 to 36 inches apart and from three to nine inches apart in the row. Cut before frost and stook in large conical stooks until required for fodder during winter. It takes about half a bushel of seed per acre.

M. A. C.

S. A. BEDFORD.

### Harrowing Grain: Campbell System

EDITOR FARMER'S ADVOCATE :

1. Will you please let me know through your valuable paper if it would be a good idea to harrow after the oats is up about 2 to 4 inches?

2. What is the Campbell system of soil culture?

3. Is farming successful in Washington, Oregon, Idaho and Wyoming without irrigation?

Man.

C. M.

See the series of articles on this subject in the May 5th number.

The Campbell system of soil culture is so-called because it has been preached and practised extensively by an energetic man named Campbell, of Lincoln, Nebraska. The system consists in plowing the land deep, packing right to the furrow bottom with the pointed disc packer and then sufficient surface cultivation to form a mulch and prevent evaporation. Many people claim this is just the good old-fashioned system of summerfallow and in a sense it is. Campbell, however, believes in plowing deeper than most farmers go in summer fallowing and plows only once in the season. The theory is that the soil, which has been turned by the plow, has a greater water holding capacity than soil not turned and, therefore, we should make as large a water holding reservoir as possible. The use of the subsoil packer helps this soil to retain moisture and the surface cultivation prevents excessive

