

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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THE FARMER'S ADVOCATE AND HOME MAGAZINE
is published every Thursday.

It is impartial and independent of all cliques or parties, handsomely
illustrated with original engravings, and furnishes the most
practical, reliable and profitable information for farmers, dairy-
men, gardeners, stockmen and home-makers, of any publication
in Canada.

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WE INVITE FARMERS to write us on any agricultural topic.
We are always pleased to receive practical articles. For such as
matter, Criticisms of Articles, Suggestions How to Improve THE
FARMER'S ADVOCATE AND HOME MAGAZINE, 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
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enough of this in an ordinary ration to serve all
necessary purposes. An occasional exception oc-
curs in the case of young animals, which need an
extra amount of ash for bone-building pur-
poses, and, in feeding these, care should be taken
to supply a reasonable quantity of such feeds as
bran, which contains a generous percentage of ash
for bone-building, as well as of protein for muscle-
making.

In the past, one of the chief aims of scientific
investigation has been to establish what propor-
tion of protein to carbohydrates and ether extract
would constitute "balanced rations" for various
purposes. The first standards formulated were
the German standards, which called for rations
with a considerable percentage of protein. Later,
American researches have established that good
use can be made of rations containing consid-
erably larger relative percentages of carbohydrates
than were formerly considered admissible. As
rations rich in carbohydrates are usually more
economical to raise, and generally cheaper to pur-
chase than those rich in protein, this is an im-
portant saving.

The reader must not run away, however, with
the idea that a ration is all right so long as it
is "balanced." While an approximately "bal-
anced" ration is generally the most profitable,
precise balance is not necessary, because, to a cer-
tain extent, an excess of protein may compensate
for a deficiency of carbohydrates, while, on the
other hand, an excess of carbohydrates may often
be utilized to advantage, even though the per-
centage of protein be somewhat below that re-
quired for an ideal ration. Besides, numerous
practical considerations, such as digestibility,
palatability, wholesomeness, bulk and economy
(which varies with localities and the range of
prices) must all be given due weight. These will
be discussed in later issues. Meantime, we ad-
vise those who wish to post themselves on the im-
portant subject of feeding to select one or more

of the following excellent standard books: "Feeds
and Feeding," by Henry. "The Feeding of Ani-
mals," by Jordan, or Prof. Shaw's new work,
"Feeding Farm Animals." Every farmer needs
such an authoritative treatise on this subject, giv-
ing tables of the percentage of digestible nutrients
in all the staple feeds, and time spent in perusing
it during the winter evenings will be amply re-
paid, not only in interest, but in dollars and
cents.

HARVEST HOME ON THE COAST.

The Pacific-Slope country has been holding its
fares the past few weeks, amid ordinarily favor-
able weather conditions, and attended by large
crowds of exhibitors and interested spectators.
Agricultural work on the coast is peculiarly of a
class that easily contributes to the holding of ex-
hibitions. There is no long-continued pull to
gather in a crop before frost sets in, as in prairie
farming. The crops of the Western coast are
those which are naturally suggested by the term
"harvest home"; fruits, vegetables, field roots,
hay and grain, all grown in such quantities that
their handling does not demand prolonged exer-
tion. Stock, also, is a prominent feature of
Coast agriculture. The farms there closely re-
semble those of Eastern Canada and parts of
Great Britain. An attempt is made to raise
practically everything of which a soil is capable
of producing. The nature of the distribution of
population in British Columbia and the natural
resources of the country make it imperative that
this shall be the case. The cities constitute the
larger part of the market, and the first aim of the
farmer is to supply what his nearest city demands.
Agricultural products, if we except fruits, are not
exported in very large quantities. The system of
farming is intensive, and each farm is somewhat
of a demonstration plot of the possibilities of the
country. The cultivated areas of British Colum-
bia increase slowly, for many very good reasons:
First, because the area suitable for cultivation is
not extensive; and, second, because it requires a
lot of labor to prepare the land for crops. Hence,
although the Province is growing rapidly, her con-
suming classes keep pace with the producing, and
good markets are a usual circumstance. Fruit is
one of the largest commodities produced, and al-
though the export surplus has to bear an enormous
charge for express and freight before it reaches its
market, it still is one of the most profitable prod-
ucts grown. The agricultural and horticultural
potentialities of British Columbia may be said to
be scarcely discovered. The valleys already set-
tled and planted have not reached their maximum
yield, and there are others whose fertility is still
locked in forest fastness. The opening up of the
interior of British Columbia will be one of the
great agricultural pioneering tasks of the present
century.

DRAG THE ROADS IN AUTUMN.

Reports coming in from members of the split-
log-drag brigade amply sustain the claims ad-
vanced on behalf of this simple means of main-
taining and improving earth roads. It would be
premature, at this date, to foreshadow the report
of the judge, but it will not be out of place to
remark that, to the question, "Is the split-log
drag a successful means of keeping earth roads in
condition?" every competitor who has so far re-
ported answers "Yes," and those who have had
previous experience with the single-stick, iron-shod
scraper or leveller, pronounce the split-log drag a
decided improvement over it. A light drag is
much better than a heavy one. Cedar appears
to be a good material to use.

We mention this much just now by way of en-
couraging the construction and use of drags for
the purpose of smoothing the roads in autumn,
thus preventing, in part, the excessive rutting and
roughening of the road surface. Few people ap-
preciate how much injury is done highways by
water collecting in hoof-prints and ruts, percolat-
ing into the subsoil, and there, by frost expan-
sion, disrupting the bond of the roadbed, honey-
combing the foundation as well as the surface,
and producing conditions which spring thawing
and traffic reduce to an unutterable mire. Every
reasonable effort that can be put forth in autumn
to keep the road smooth and well drained and

frost seals the surface will be richly repaid by the
immediate smoothness and permanent betterment
of the highway. We plow fields in autumn to
give King Frost a chance to disintegrate the
particles of soil. Conversely, the road should be
kept smooth, hard and compact, to avoid such
disintegrating effect. To this end, clean out ob-
structions from the ditches, look to the culverts
and drainage outlets, and then drag the road
after every wet spell, and especially before a
prospective freeze-up. Practically all kinds of
roads should be dragged at this season—sand,
gravel and clay, but particularly the clay. Opin-
ion has been expressed that, in localities where
the winter is open, a split-log drag could be used
to excellent advantage, not only in fall, but dur-
ing winter break-ups. For such work, especially,
the split-log drag would be far superior to the
single-piece leveller, as, if not of too heavy ma-
terial, it can be used right in the mud; and, in-
deed, requires, for best results, that it be used be-
fore the road is dry. We must keep the drags a-
dragging, and build more.

OUR MARITIME LETTER.

THE NEW COLORED WEED BULLETIN.

No greater pleasure has been ours for many a
day spent in the upbuilding, as best we knew, of
agricultural sentiment in the country, than that
which the perusal of the new farm bulletin on
weeds, with its rich and accurate descriptions, its
splendid illustrations in all the glory of the na-
tural colors, and the invaluable advice as to ex-
tirpation, has afforded us. Most mortals enjoy
much more intensely the works, public or private,
to which they have been a contributing factor.
Whilst this color-page of Canadian noxious weeds
and their seeds is something altogether new in the
free literature of the country, and whilst we can
only claim special contribution to one or two of
the subjects contained within these covers, of
which due credit is given, we have had the great
satisfaction of being the first, we believe, to urge
upon the distinguished and especially capable and
devoted Dominion Botanist, Dr. Fletcher, in sea-
son and out of season, the great value of a work
such as this to Canadian agriculture, since it
would enable the farmer to identify his plant
enemies everywhere, and, especially, make it easy
for the rising generation to gather a fund of
knowledge in which their forebears were lament-
ably deficient. Decidedly, the work has been
carried out on a scale much more magnificent than
we could have planned; undoubtedly, it has cost
the country a considerable penny, but certainly it
is worth all the money expended, and more, too.
It is, perhaps, the first monument in our agricul-
tural literature which will endure for much time—
the veritable "monumentum aere perennius" of
the poet.

Already a favorable word of this work has
reached your readers. Its special timeliness to
this Maritime community, and the personal part
in it for us, will admit of this further reference
here. We are proud of the publication as a Cana-
dian one, and proud, also, of the special copy
which reached us before the general distribution,
inscribed as follows:

To My Good Friend

The Reverend A. E. Burke,
Who has done so much to develop the re-
sources of Prince Edward Island
JAMES FLETCHER.
Ottawa, Sept. 20, 1907.

We receive many kind testimonies in our pas-
sage through life, some of them merited, some of
them unmerited; but certainly there is none we
appreciate higher than those which have special
reference to our little and imperfect efforts in
favor of the agriculture of the Dominion in gen-
eral and that of our own fertile Island Province
in particular. And the regard of such men as
Dr. Fletcher and his associates in the official work
of the special branch having to do with this basic
source of the country's activities, is the best re-
ward which the disinterested can possibly covet
for any little sacrifices and hardships which they
may have to endure. We shall cherish this copy
of "Farm Weeds," then, in this special sense,
among our most precious possessions.

Seed Commissioner Clark, in transmitting the
volume to the Minister of Agriculture, says: "The
text of this bulletin is by Dr. James Fletcher,
Entomologist and Botanist to the Dominion Ex-
perimental Farms, and the illustrations were made
in water-color from actual specimens under his
supervision, by Mr. Norman Criddle, of Aweme,
Man., while employed by the Seed Branch." It
contains 56 plates, 4 of which are devoted to the
illustration of noxious weed seeds, each of these
plates containing some 20 examples in their na-