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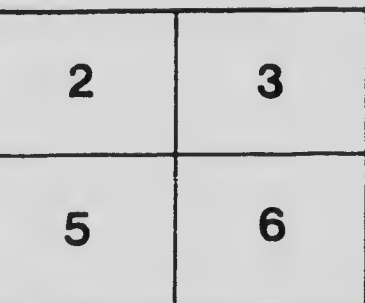
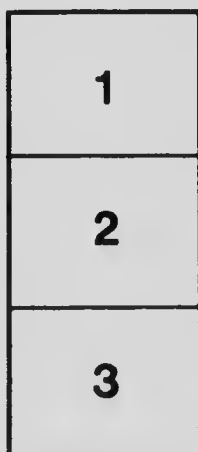
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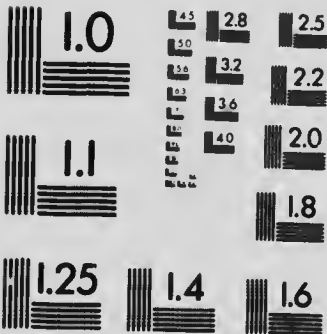
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**EXPERIMENTAL FARMS.**

**J. H. GRISDALE, B. Agr.,**  
Director.

**E. S. ARCHIBALD, B. A., B. S. A.**  
Dominion Animal Husbandman.

DIVISION OF ANIMAL HUSBANDRY.

**THE FEEDING OF LIVE STOCK.**

BY

**G. B. ROTHWELL, B.S.A.,**  
ASSISTANT.

The following rations apply, in several instances, rather more to conditions as met with in Central Canada than to those of the Maritime and Western Provinces. The varying prices of foodstuffs, variation of seasons, and other circumstances materially affect the relative economy of rations. If you are interested further, write to the Animal Husbandry Division, Ottawa, or to the Superintendent of your nearest Experimental Farm.

**CATTLE RATIONS.**

**FOR THE 1,000 POUND DAIRY COW (CENTRAL CANADA)**  
**WINTER RATIONS.**

**RATION 1.** Clover hay, 10 lbs; roots, 25 lbs; ensilage, 35 lbs; oat straw, 4 lbs. Meal mixture: bran, 500 lbs; oats, 200 lbs; barley meal, 200 lbs; oilcake meal, 300 lbs. Feed at the rate of 1 pound of meal to each 4 pounds of milk produced.

**RATION 2.** Corn ensilage, 40 lbs; alfalfa or clover hay, 10 lbs; oat straw, 5 lbs. Meal mixture: bran, 500 lbs; oats, 300 lbs; corn, 200 lbs; gluten meal, 300 lbs. Feed 1 pound meal mixture to each 4 pounds of milk produced.

(In the case of the above rations where corn ensilage could not be procured, roots would of necessity be the succulent component and might be increased to 50 lbs. per day.)

**WESTERN CANADA.**

**RATION 1.** Corn ensilage, 30 lbs; Western rye-grass 10 lbs; oat chaff, 10 lbs. Meal mixture: bran, 300 lbs; oats, 300 lbs; flax, 200; small wheat, 200 lbs.

**RATION 2.** Mangels or turnips, 30 lbs; brome hay, 10 lbs; clover hay, 5 lbs; oat chaff, 10 lbs. Meal mixture: oats, 300 lbs; barley, 200 lbs; small wheat ground, 200 lbs. With both of the above rations, 1 lb. meal to be fed to each 3 lbs. of milk produced.

(The feeding of clover or alfalfa hay,—where these fodders may be successfully grown,—would improve Ration 1.)

### A SUMMER RATION.

Grass as soon as available, care being taken not to pasture before the grass has attained sufficient growth to prevent its being injured by grazing and trampling. As a supplement, feed 1 lb. of the following mixture to each 3 lbs. of milk produced: Bran, crushed oats and corn meal, equal parts. The grass should be further supplemented with soiling crops such as green-cut peas and oats, or with ensilage, at the first sign of decreased milk production.

### FEEDING THE DAIRY CALF.

The calf should receive for the first three or four days the milk of its dam, and for 10 days at least, should receive whole milk, giving not more than 10 lbs. per day, when fresh skim milk may be introduced and gradually increased as the whole milk constituent decreases, until the calf is receiving 12 lbs. of skim milk per day in a clean pail at a temperature of from 90 to 100 degrees. To this skim milk should be added a quantity of flaxseed jelly as follows: Ground flaxseed, 1 part; fine ground sifted corn meal, 2 parts; fine ground oat meal, 2 parts: boil and let stand 12 hours. Calves 1 month old should receive  $\frac{1}{2}$  lb. per day, increased gradually, but never to exceed  $\frac{1}{2}$  lb. per day. In addition to this, feed small quantities of a mixture of bran, whole rolled oats and cracked corn, and see that from the start calves have access to a little specially selected, well-cured clover hay.

Feed *clean food regularly in clean utensils, and in a cleanly manner, and avoid all sudden changes in diet.* By so doing, the danger of digestive ailments common to calves is reduced to a minimum.

### WINTER RATION FOR THE FATTENING ANIMAL.

Roughage: (to remain constant throughout period).

Ensilage, 40 lbs; roots, 15 lbs; cut straw, 4 lbs; long clover hay. Meal fed per day throughout the fattening period as follows:

1st and 2nd weeks.....None.

3rd week.....1 lb. bran.

4th week.....1½ lb. bran, ½ lb. oilcake.

5th and 6th weeks... 3 lbs. of mixture of bran, 2 parts; oilcake, 1 part.

7th, 8th and 9th weeks.....4 lbs. of the above mixture.

10th, 11th and 12th weeks—5 lbs. of mixture of 1 part bran; 2 parts oilcake.

### SUMMER FEEDING.

Where steers are being finished on grass it is frequently advisable to supplement their succulent feed with 2 or 3 lbs. daily of a meal mixture similar to that fed during the 5th and 6th week as outlined above. Where grass is becoming scarce, ensilage and clover hay may also be made use of.

### RATIONS FOR HORSES.

FOR THE FARM HORSE AT AVERAGE WORK the following mixture and method of feeding has been found particularly satisfactory:

Grain mixture of 5 parts whole oats; 2 parts bran; fed at the rate of 1 lb. per 100 lbs. weight. Hay: either clean timothy, or mixed timothy and alsike, fed 1 lb. per 100 lbs. weight.

FOR THE HORSE AT PARTICULARLY HEAVY WORK such as would be met with during the spring and fall, the grain mixture just mentioned should be concentrated by using 5 parts of oats to but 1 part of bran, and fed at the rate of 1¼ lbs. per 100 lbs. live weight.

### METHOD OF FEEDING.

5 a.m.— $\frac{1}{2}$  of the total day's grain mixture;  $\frac{1}{4}$  of the total day's hay.

12 a.m.— $\frac{1}{2}$  of the total day's grain mixture;  $\frac{1}{4}$  of the total day's hay.

6 p.m.— $\frac{1}{4}$  of the total day's grain mixture;  $\frac{1}{2}$  of the total day's hay.

**FOR THE IDLE HORSES IN WINTER**, or for horses that merely require what might be termed a maintenance ration, it is recommended that for every 100 lbs. of the horse's weight be fed 1 lb. mixed hay; 1 lb. oat straw and 1 lb. turnips. To this might be added a small feed daily of bran and oats, equal parts.

**FOR COLTS AND YOUNG HORSES** where bone and muscle-forming constituents are necessary, grain feed should not be eliminated, but should be administered somewhat as follows:

A grain mixture of  $\frac{2}{3}$  oats,  $\frac{1}{3}$  bran, to be fed as follows:

|                               |             |
|-------------------------------|-------------|
| Up to 1 year of age.....      | 3 to 4 lbs. |
| From 1 to 2 years of age..... | 5 to 6 lbs. |
| From 2 to 3 years of age..... | 6 to 8 lbs. |

With the above clean mixed hay and a mangel or turnip each day during the winter months.

## SHEEP RATIONS.

### A WINTER RATION FOR PREGNANT EWES:

Clover hay, 2 to 3 lbs. per day and roots, 2 to 3 lbs. The above should suffice except when ewes are thin, when meal should be fed at the rate of  $\frac{1}{2}$  lb. daily of a mixture containing oats,  $1\frac{1}{2}$  parts; bran, 1 part, and oil cake 1 part. Ewes lambing in February, March and April, should receive the above grain mixture with plenty of succulent food such as ensilage and turnips; giving particular attention to the roughage, which should consist of good green-cured clover or alfalfa hay.

### A RATION FOR YOUNG LAMBS.

At two weeks of age the young lambs should be supplied, in a creep or hurdle which admits him but not his mother,—with small quantities of a mixture of crushed oats and bran, to which may be later added a little oil cake. In this creep may also be placed a rack containing some specially selected hay.

### A FATTENING RATION.

Equal parts ensilage and turnips; 2 to 3 lbs. clover or mixed hay; and grain mixture as follows:

|                    |          |
|--------------------|----------|
| Oats .....         | 200 lbs. |
| Bran .....         | 200 lbs. |
| Nut Oil Cake ..... | 100 lbs. |

To which may be added: Corn, 200 lbs. Starting with  $\frac{1}{2}$  pound per day, increasing to  $1\frac{1}{2}$  lb. towards the end of the fattening period.

## SWINE RATIONS.

### FOR THE PREGNANT SOW:

Summer: Pasture on rape, clover, alfalfa or vetch. Meal: Bran, 2 parts; shorts, 1 part.

Winter: Sugar beets, mangels, turnips with clover and alfalfa hay. Meal: Bran, 2 parts; shorts, 1 part.

### FOR THE SOW AFTER FARROWING.

For the first day, little more than a tepid slop of middlings. Later, a mixture of equal parts of middlings, bran and ground oats.

### EXERCISE IS A MAIN FEATURE IN THE TREATMENT OF BROOD SOWS.

With the exception of the time which they spend indoors after farrowing, which period will vary according to the time of the year at which they farrow,—the sows should live out-of-doors, with a small portable cabin for a shelter. This applies to winter conditions in practically all parts of Canada.

### RATION FOR YOUNG PIGS.

For the first feeding of young pigs, middlings, finely ground sifted oats and skim milk will be found excellent. Later on, say at three months of age, a mixture of middlings, 2 parts; finely ground oats, 2 parts; corn, 1 part; and skim milk may be used.

Here again, exercise is essential, care being taken that the youngsters do not get too fat from over-feeding and lack of exercise, with the ensuing ailments.

### A FATTENING RATION.

An economical feeding ration is as follows:

Equal parts of shorts, ground oats, and ground corn, with 5 lbs. of skim milk per pig per day, and all the clover or alfalfa pigs will clean up. Where such a ration has been used, skim milk has been shown to be worth all the way from 28c. to 79c. per cwt. Green-cut clover similarly may be made worth \$4.50 per cwt. Are you utilizing these feeds to the best advantage?

IN GENERAL, for all classes of stock, where natural conditions are altered, strive to approximate the same. PALATABILITY, DIGESTIBILITY and POWER TO INCREASE PRODUCTION are the prime factors of all rations, viewed from the standpoint of economy and animal health.



