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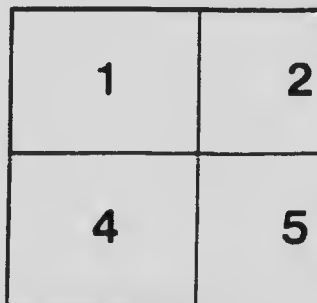
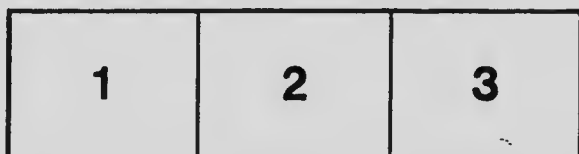
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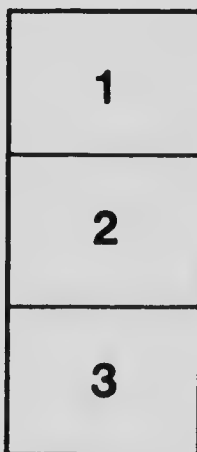
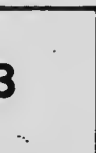
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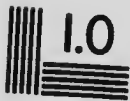
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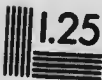
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**EXHIBITION CIRCULAR NO. 48.**

(June, 1915)

**DOMINION OF CANADA  
DEPARTMENT OF AGRICULTURE  
EXPERIMENTAL FARMS.**

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—for—  
**Central Alberta.**

**FORAGE CROPS AND PASTURE GRASSES,**  
—by—  
**G. H. HUTTON.**

The rapid increase in the percentage of cultivated land is making it necessary that farmers who keep stock make better provision on their own farms for feed for that stock than was necessary in the years prior to the breaking-up of the land for grain growing.

The abundance of natural grass for pasture and the ease with which large quantities of this was cured for hay rendered it unnecessary to consider the possibility of growing other fodder crops in those days.

This condition is now altered to such an extent that numerous letters are received from all parts of Central Alberta inquiring as to the most suitable forage crops and the most desirable pasture grasses for this district.



**Dairy Herd at Lacombe, on timothy, red clover, and alsike pasture,  
alsike predominating.**

**FORAGE CROPS.**

The forage crops most suitable for Central Alberta are Alfalfa, Alsike Clover, Peas and Oats cured as hay, Timothy, Brome and Western Rye Grass.

### ALFALFA.

The subject of alfalfa culture is dealt with in Bulletin No. 8, second series, Dominion Experimental Farms, and will not be treated here. It may be stated, however, that this crop will almost certainly be more generally grown as time passes, and as its high feeding value is shown.

### THE CLOVERS.

Alsike Clover is proving best adapted for Central Alberta conditions. It does not require inoculation, is hardy and productive, making a much stronger growth here than is usual with this clover in most parts of America. This variety is being used in the following mixture and is sown with a nurse crop of barley; Timothy, 4 lbs., Alsike, 4 lbs., Red Clover, 4 lbs., per acre.

The combination is satisfactory, the hay produced being of high quality, particularly for horses, and the alsike clover is prominent in the aftermath.

Red Clover appears to require inoculation, does not as yet make as good growth as alsike and does not make as vigorous growth the second year as the latter variety. It is possible that as the land is longer under cultivation and more barnyard manure is worked into the soil, that red clover will be more successful. Red clover has always responded readily to inoculation, but where alsike will succeed without inoculation, and grows so profusely, it is thought advisable at present to recommend the growing of alsike in preference to red clover.



Growth of clover sown with barley as a nurse crop.

### PEAS AND OATS.

Peas and oats sown together at the rate of one bushel of peas and two of oats per acre, sowed as soon as possible after the seeding of the crop intended for threshing is concluded, has given splendid results. The following table gives the yield in field areas for the past three years:—

Year	Area Acres	Yield per Acre	
		Tons	Lbs.
1912 .....	8	4	42
1913 .....	35	3	800
1914 .....	*55	2	333
1914 (weighed green) .....	1½	12	1000

\* Area partly drowned out.

The crop is cut with the binder when the oats are in the milk stage and is shocked up in not too large shocks. It cures out with the leaves all attached, remains quite green when dry and, as shown above, produces a satisfactory tonnage per acre. The average yield for 1914 is not heavy, but the area included a field in part of which no crop at all was harvested because of excessive rainfall and lack of drainage.

The yield of straight oats in 1914 on 1½ acres when weighed green was twelve and one-half tons per acre. A heavier tonnage of peas and oats can usually be produced per acre than of oats alone. Thus it will be seen that there are great possibilities with this fodder crop in this country.

#### PEAS AND OATS IN THE SILO.

A silo was erected during 1914 and filled with (1) corn, (2) peas and oats. About 62 tons of peas and oats were cut into the silo, the oats being in the milk stage. At this date (December 15th) the pea and oat silage has been tried, though the feeding trials now under way have yet to run some weeks, it is therefore impossible to draw conclusions. We can, however, speak of the keeping quality of this kind of silage and in this respect it is all that could be desired. It was cut as fine as possible and well tramped and has kept admirably and is relished by the stock.



Corn at Lacombe Station; yield, 15 tons per acre.

#### CORN.

Corn is not included in the list of fodder crops suitable for Central Alberta for the reason that it cannot as yet be depended upon to give a crop every year. In 1914 30 tons of fodder were produced on two acres, but this is only the second time in seven years that a paying crop of fodder corn has been produced here. We expect a gradual development in corn culture, but for the present in this part of Alberta dependence should be placed upon a more certain crop.

#### TIMOTHY.

For home consumption and except for horses, timothy is not a desirable forage crop. It succeeds well sown with a nurse crop of barley, and should be seeded at the rate of about five pounds or more good seed per acre.



### **BROME GRASS.**

Brome grass when cured for hay requires care, but when properly cured is a first class hay for stock, especially cattle. Seed at the rate of twelve to fourteen pounds per acre with a nurse crop of barley. Land once seeded to this grass is sometimes freed from it with great difficulty.

### **WESTERN RYE GRASS.**

This variety is well suited to regions where the rainfall is less than at Lacombe, and is beyond doubt the best variety for hay for dry lands. At Lacombe it is seeded at the rate of about twelve pounds per acre, with a nurse crop of barley.

### **PASTURE GRASSES.**

#### **KENTUCKY BLUE GRASS.**

The stock carrying capacity of land seeded to Kentucky Blue Grass for pasture purposes is at least double that of similar land under natural grasses. Seed at the rate of twelve to fourteen pounds per acre is sown, and better success has been noted to date when no nurse crop was used. If desired to obtain a stand quickly the seed may be sown on breaking and if the land has been well worked a good catch is almost certain.

This grass produces an early pasture, stands drought well and continues green late in the season. It has proven very satisfactory at this station and in this district.

#### **BROME GRASS FOR PASTURE.**

Brome grass is also an early grass to start in the Spring and stands dry weather well. It is nutritious and a profuse grower. The growth is not as dense as Kentucky Blue grass. The Brome variety is desirable for dry land areas and is not as dangerous in Central Alberta as many suppose.

#### **BROME NOT DANGEROUS.**

If winter wheat is not being grown the careful farmer need not fear Brome Grass. By breaking the sod in late July or early August and working the land down well in the fall, giving also Spring cultivation prior to seeding, the grass will not interfere. While an occasional plant may be found it will not be present in sufficient numbers to affect the result and a rotation may safely be planned which includes the sowing of Brome grass.

#### **THOROUGH CULTIVATION NECESSARY TO A GOOD CATCH OF GRASS.**

It should be remembered that grass seeds are small and that the young plants produced by such seed are small and tender in the beginning and that the soil should be well prepared to receive the seed. A stroke of the drag harrow after seeding will leave a field that has had the necessary previous cultivation in good shape for the mower, as well as do much to insure a uniform stand.



