University of Saskatchewan

Saskatoon, Saskatchewan

DEPARTMENT OF FIELD HUSBANDRY

April 12, 1928.

Dr. Seager Wheeler,
Rosthern, Sask.

Dear Dr. Wheeler:-

In accordance with your letter of April 11, we are sending you a circular on wheat grass, which has been prepared by Dr. Kirk, and gives full information about this crop.

We will send you a reprint of Dr. Harrington's article on harvesting rusted wheat later on when we receive them. We should have them in about three or four weeks.

With kind regards, we remain

Yours very truly,

FIELD HUSBANDRY DEPARTMENT.

M. Champlin

Sr. Professor.

MC:D
Encl.

#162-28.
Circular #519.

UNIVERSITY OF SASKATCHEWAN
College of Agriculture
Field Husbandry Department.
Saskatoon, Sask., February 15, 1928.

CRESTED WHEAT GRASS

By L. E. Kirk
Professor Field Husbandry.

HISTORY: Crested Wheat Grass is native to European Russia and southwestern Siberia. It was introduced by the United States Department of Agriculture first in 1898 and tested at various State experiment stations. Only in recent years however, has it received any special attention. The good qualities of this grass were first observed at the dry land experiment stations of the Dakotas and Montana.

In 1915 a small quantity of seed was secured from the United States Department of Agriculture and planted in the Field Husbandry Experimental plots at the University. Later, introductions were received from Russia, Montana and South Dakota. It was evident from the first that this grass showed promise for Saskatchewan conditions, especially the less humid parts of the province. From its history in Russia and from experience with its culture elsewhere, especially at dry land experiment stations in Montana and North Dakota, it seemed likely that it would prove of greatest value in the southwestern part of the province, since drought resistance is an outstanding characteristic. On account of the fact that marked differences could be observed between introduced strains and between plants in the same strain, some selection work was undertaken for the purpose of getting a fairly uniform and desirable type for distribution. In 1926 an increase plot of about an acre was seeded in rows, and this yielded in 1927, 517 pounds of cleaned seed per acre. A portion of this seed is being distributed to members of the Field Husbandry Association who wish to make an experimental test. The crop is also being tested in a thorough manner on the University experimental plots in comparison with Western Rye Grass and Brome Grass.

CHARACTERISTICS: Crested Wheat Grass is closely related botanically to Western Rye Grass. It differs in appearance from the latter in that the heads are broad and somewhat fan shaped whereas the heads of Western Rye grass are very long and slender. The seed of the two grasses is similar in shape but the Crested Wheat Grass seed is smaller and carries a very short fine awn. It is perennial and is not creeping rooted. Eradication, therefore, presents no difficulty. It is more drought resistant than Western Rye or Brome grass and growth starts two weeks earlier in the spring. In the cool weather of early spring and late fall Crested Wheat Grass makes its best growth and during the hot weather of midsummer the plants grow very little. This is expecially true if drought conditions prevail. When temperature and moisture conditions are favorable, growth continues throughout the season.

Another characteristic of Crested Wheat Grass is its good seeding habits. Good yields of seed have been obtained every year at Saskatoon. Seed is not yet available on the market but it is probable that it will be in the course of another year or two. As hay or pasture, this grass is very palatable to all kinds of stock, horses especially being very fond of it. Even the straw makes very good feed as the heads ripen while the stems and leaves are still green.

CULTURE: For hay or pasture, Crested Wheat Grass should be sown at the rate of ten pounds per acre. Drilled seeding is more dependable than broadcasting. The ordinary grain drill may be used for this purpose, but it is always well to keep a close watch that the spouts do not clog.

The seed should be sown as early in the spring as possible, in a well prepared seed bed. Summerfallow is the best preparation, especially if the grass seed is sown with a nurse crop. For seed production, best results are obtained by seeding in rows three feet apart at the rate of five pounds per acre. When the grass seed is sown without a nurse crop the field may be clipped with the mower to control weeds.

HARVESTING: In harvesting the crop for seed, the grain binder is very satisfactory. As the seed is inclined to shatter badly, harvesting should begin as soon as the seed heads have turned brown and while the stems and leaves are still green. Small quantities of seed may easily be pounded out with a flail or fork but for larger quantities the ordinary grain separator does very satisfactory work. Yields of 200 to 500 pounds of cleaned seed may be secured and the seed weighs about 20 pounds per bushel. The hay crop should be harvested and handled the same as any other grass.