

cultural School and Experiment Farm near Saratof, on the Volga (annual rainfall 17.6 inches), *Bromus inermis* was native and regarded as their best grass, having survived on dry hills where timothy and red and white clover failed.

The best Russian authorities do not think this grass equal to timothy in feeding value, but it flourishes in sections where timothy is an utter failure. Its chief value will probably be in dry regions.

It may appear that this grass as cultivated hitherto in America really came to us largely from Russia by way of Austria and Hungary. The seed is largely sold in Russia for home sowing and for export.

At the experiment station at Ames, Iowa, this species produced under very favorable conditions a ton and a half of cured hay per acre the first season. The seed was planted about April 1 and the crop cut in August. A strong leafy aftergrowth followed. This is as personally reported by Prof. James Atkinson. (*Professor Hansen.*)

**1336. PANICUM MILIACEUM.**

**Millet.**

From Russia. Received through Prof. N. E. Hansen, February, 1898. (10 packages.)

From Orenburg, Russia, on the boundary between European Russia and Siberia. Endures very severe drought. The seed is large and is much used, when hulled, for food by the peasants and the Kirghiz Tartars. "Red lump variety."

**1337. FESTUCA OVINA (?).**

**Sheep's fescue.**

From Russia. Received through Prof. N. E. Hansen, February, 1898. (50 packages.)

**1338. HELIANTHUS ANNUUS.**

**Sunflower.**

From Russia. Received through Prof. N. E. Hansen, February. (24 packages.)

Gray Russian variety.

Sunflowers are an important crop in the southern and southeastern provinces of European Russia, and the acreage has steadily increased since the thirties, when the peasant Bokarev discovered that a good table oil could be made from the seeds. A striped variety is grown for the seeds, which form a cheap dainty for the peasants, who eat the kernels as a nut. The gray variety is used for oil. In 1888 the crop was over 5,000,000 bushels. The average crop is 361 pounds per acre from favorable soils, although crops of over 900 pounds per acre are raised some years. More than 80 per cent of all the mills are concentrated in the provinces of Voronezh and Saratof, and the value of the oil in 1889 was 2,188,700 rubles. The oil cake or residue left after the oil is pressed out finds ready sale for cattle feed in foreign markets, the export in 1891 amounting to 1,852,000 rubles. The husks, stalks, and heads are used for fuel, which is a great help in the dry, forestless steppe provinces. Nikiforov says: "On the whole, the sunflower is an extremely useful plant and a valuable aid in the rural economy of the southeastern zone of Russia, especially in the years of scarcity in the cereal crops." (*Professor Hansen.*)

**1339. PISUM SATIVUM.**

**Pea.**

From Russia. Received through Prof. N. E. Hansen, February, 1898. "Rostof sugar."

In the district of Rostof, 150 miles northeast of Moscow, dried-green peas are produced in great quantity for market, and the Rostof sugar is the best variety for this purpose.

**1340. PISUM ARVENSE (?).**

**Field pea.**

From Russia. Received through Prof. N. E. Hansen, February, 1898.

**1341. TRITICUM VULGARE.**

**Wheat.**

From Russia. Received through Prof. N. E. Hansen, February, 1898. (1 package.)

"Summer Romanof." Largely grown in northern Russia.