

1156. TRITICUM DURUM.**Wheat.**

From Semipalatinsk, Siberia. Received through Prof. N. E. Hansen, June 4, 1898. (5 packages.)

"Arnautka," a hard white wheat, first quality; a spring variety. (See No. 1153.)

1157. TRITICUM VULGARE.**Wheat.**

From Semipalatinsk, Siberia. Received through Prof. N. E. Hansen, June 4, 1898. (10 packages.)

Chinese; a spring variety.

1158. ELAEAGNUS ANGUSTIFOLIA.**Oleaster.**

From Djarkent, Russian Turkestan. Received through Prof. N. E. Hansen, June 4, 1898. (6 packages.)

The form called *E. hortensis*. An edible market fruit. (See No. 1114.)

1159. MEDICAGO SATIVA.**Turkestan alfalfa.**

From Kopal, Siberia. Received through Prof. N. E. Hansen, June 4, 1898.

Variety "*turkestanica*." Originally from Abakumovsky, near Kopal, Semiretchinsk Province, Siberia, N. lat. 46°. Professor Hansen writes:

"I followed this plant from the cotton-growing sections of Bokhara and other parts of Russian Turkestan into western China and to its northern limits near Kopal, Siberia.

"A large quantity of seed was obtained, but mostly from the cotton-growing sections (Bokhara, Samarkand, and Tashkend). The other five places were Sairam, about 80 miles north of Tashkend; 150 miles north of Merke (Merke is in lat. 43° and long. 73° east of Greenwich), in the Kirghiz Tartar steppes; Kuldja, China (lat. 43° 50', long. 81° 20' east), the farthest point east in my journey; Djarkent, lat. 44° 10', long. 80° east, and Kopal, lat. 45° 10', long. 79° east. These various importations should be kept separate, as the plants will probably differ in hardness. The last five places are north of the cotton belt. From the last four places only a small quantity of seed could be taken along in a rough adventuresome overland journey of over 2,000 miles. That from Merke and Kopal will probably be the hardest.

"Prince Massalski of the department of agriculture at St. Petersburg, writes (in *The Industries of Russia*, Vol. III, p. 459):

"'Lucern-clover, *Medicago sativa*, var. *turkestanica*, is the chief forage in use throughout Central Asia, and to the settled population of Turkestan is of the highest importance, since during the summer it forms the chief, and in winter, prepared in the shape of hay, the only fodder for cattle. It is of all the greater importance because within the region populated by settled inhabitants there are no meadows. Soft herbs and other grasses that grow up in the early spring in certain parts of the steppes are quickly dried up by the hot rays of the sun, and give place to coarse, prickly stubble, or in any case to less nutritive grasses that are in general unfitted for sheep, camels, or steppe cattle, and still less fitted for horses or the cattle of those who are settled in the oases, and are thus closely confined to the forelands or rivers, and in most cases are far removed from the steppes.' Prince Massalski describes the native methods of cultivation and irrigation and continues: 'The native lucern would seem to be a cattle fodder that can not be replaced in countries so dry and so hot as Turkestan and the Transcaspian Province. Parallel experiments that have been made in the Merv oases, in the Transcaspian Province, in sowing native and French lucern, under widely different conditions of water supply, have shown that the native lucern, particularly where there is a lack of water, is vastly superior to the French in the crops it yields, and that it is able to grow satisfactorily with a minimum supply of water, a supply so small that European lucern would perish from drought. This peculiarity of the native lucern is to be explained by its peculiar structure. It possesses a very large root system, and its leaves are covered with thick down; this, in conjunction with a deep-cut orifice on the leaf, enables the plant on the one hand to imbibe the moisture from the deeper layers of the soil, and on the other hand to exhale it in very small quantity.'" (See Nos. 1101, 1150, 1151, 1169.)

1160. CUCUMIS MELO.**Muskmelon.**

From Kuldja, China. Received through Prof. N. E. Hansen, June 4, 1898. (20 packages.)

Variety "Ak-na-waht" (white sugar).