38139—Continued.

very much, indeed, since cold weather in the early stages will almost stop the growth altogether. About three waterings will be needed before the first cutting, which is taken when the plants are about 25 cms. high. The time elapsing between sowing and first cutting is about 45 to 80 days, according to the character of the weather. In the majority of cases the crop is eaten on the ground by animals; in other cases the crop is cut or pulled by hand and carried. The soil should be just moist enough to stimulate the plant to grow again at once when cut. This is best attained by watering 10 days or so before it is intended to cut it off. A few days after the crop has been removed the land is again watered, and the Misgawi grows very rapidly, usually giving a second cutting in from 25 to 35 days. This crop is treated like the first, and in this way the land is made to give four good cuttings from the main crop. With early sowing a fifth may be gotten, and then the plant is allowed to flower and produce seed. With late planting the fifth cutting would be light, and it is usual to allow it to seed after the fourth.

"The cultural management of our Misgawi berseem is also very simple. Manures are never applied, as the growth is quite satisfactory without them. It will grow well on most cultivated soils. On very light soils drought must be carefully guarded against, and the plants will not grow on salt lands.

"The following are the approximate areas of Misgawi which will carry the various farm animals on average land during the season: Bullock, two-thirds of an acre; cow and young stock, slightly less; horse and mules, half an acre; donkey, one-fourth acre; sheep usually pick up what is left by the other animals and would never be allowed uncut berseem. About one-third more of the first cutting than of the subsequent ones is required for animals." (*Green.*)

"Repeated trials for several years subsequent to 1900 failed to find a region in this country where the temperature conditions were suited to the culture of this plant. It requires cool weather, without frost. For a complete account of this plant as used for forage and soiling in Egypt, see Bureau of Plant Industry Bulletin 23, Berseem: The Great Forage and Soiling Crop of the Nile Valley." (*Fairchild.*)

38140. CROTALARIA JUNCEA L. Fabaceæ. **Sunn hemp.**

From Jubbulpur, Northern Circle, India. Presented by Mr. John H. Ritchie, Deputy Director of Agriculture, at the request of Mr. A. Howard, Imperial Economic Botanist, Pusa. Received May 11, 1914.

"*Sann* hemp. The seed is not of a pure agricultural line, but is simply seed as grown by the Indian ryot and represents the common crop of this district. I may add that all the finest qualities of sunn hemp come from this part of India, which is within the limits of my working circle."

38141. CORCHORUS CAPSULARIS L. Tiliaceæ. **Jute.**

From Dacca, Bengal, India. Presented by the Department of Agriculture at the request of Mr. A. Howard, Imperial Economic Botanist, Pusa. Received May 11, 1914.

"*Bengal* jute."

"*Corchorus capsularis* is an annual plant, growing from 5 to 10 feet high, with a cylindrical stalk as thick as a man's finger, and seldom branching except near the top. The leaves, which are of a light-green color, are about 4 to 5 inches long by 1½ inches broad toward the base, but tapering upward into a long, sharp point with edges cut into sawlike teeth. the two teeth next