

52358 to 52361—Continued.**52359. LINUM GRANDIFLOSUM Desf.**Variety *rubrum*.

"An erect, branching plant, 25 inches high, native to Algeria. The bluish green leaves are darker than those of *Linum usitatissimum*, and the plant is also later and less determinate in its blooming period; the flowers are much larger and of a deep-red color." (*J. C. Brinsmade, jr.*)

For previous introduction, see S. P. I. No. 38972.

52360. LINUM MUELLERI Moris.

A plant 1½ feet high, with shrubby branching stem, found in hilly grazing lands in Sardinia. The green glabrous leaves have revolute margins; the lower are elliptic, the upper linear-lanceolate. The yellow flowers are in lax terminal panicles. (Adapted from *Moris, Flora Sardoæ, vol. 1, p. 358.*)

52361. LINUM USITATISSIMUM L.

A form introduced for flax investigations.

For previous introduction, see S. P. I. No. 50160.

52362. CRATAEGUS AZAROLUS L. Malacææ.**Hawthorn.**

From Cefalu, Sicily, Italy. Seeds presented by Signor Salvatore Scalco, through E. M. Byrnes, assistant in charge, Experimental Gardens and Grounds, United States Department of Agriculture, Washington, D. C. Received January 24, 1921.

Among the species of *Crataegus* one of the most important is *C. azarolus*, with its numerous varieties and races. This is a shrub of the calcareous hills and grows only on very dry lands. If undisturbed, it grows as high as 13 to 16 feet, but its branches are generally hacked off for fuel by Arab women or mutilated by heavy stones thrown by the boys to shake down the fruit. Some varieties of *C. azarolus* have fruits as large as a large cherry, with a very agreeable acid taste. Although they are sold on the markets of the Orient, they would not be marketable in Europe or America because of the large stones; but specimens are often found which are nearly stoneless, and it is possible that this character could be fixed by selection. For 15 years or more the writer has used *C. azarolus* as a stock for pears with excellent results. Top grafted at 2 to 3 feet above the ground, it develops into a very beautiful, productive, and long-lived dwarf tree, provided the grafting is done with a very early variety. This shrub occurs in extremely hot, dry places, and must therefore complete the greater part of its development early in the season. Its roots therefore are unable to furnish the amount of sap necessary to develop pears in August. If, however, it is grafted with a pear which fruits in May or June, when the roots of the *Crataegus* are in their period of greatest activity, the best results are obtained. The writer speaks only of pears because he has experimented with them, but he sees no reason a priori why these stocks should not do as well for apples, which he has not as yet tried. (Adapted from *Aaronsohn, Agricultural and Botanical Explorations in Palestine, Bureau of Plant Industry Bulletin No. 180, pp. 15-16.*)

For previous introduction, see S. P. I. Nos. 48516 and 48517.