

479384 TO 479388-continued

Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Shrub deciduous, 4m tall, spreading habit with long pointed green buds. Leaves dark green above, light green beneath. Growing in woodland along roadside in field no. 122. Wild. Seed.

479386. JH-99-82. Japan. US National Arboretum. 51121. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Growing in open woodland in sunny situation. Seed collected from several plants. Wild. Seed.

479387. JH-155-82. Japan. US National Arboretum. 51177. Collected September 24, 1982. W side of Lake Kusharo, Urankoshi, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 34' N, Long. 144 deg. 19' E. Snow cover 60cm per annum. Minimum temperature -25C. Shrub deciduous, 4m tall. Branches wide spreading, open. Leaves bright green above, light green beneath. Fruit deep red with brown wings, seeds with orange aril. Seed collected from 4 trees. Wild. Seed.

479388. JH-191-82. Japan. US National Arboretum. 51208. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 3m tall. Leaves light green above, lighter beneath. Fruit strongly winged, red, the seeds with an orange aril. Seed collected from one tree. Cultivated. Seed.

479389. *Euonymus melanantha* Fr. & Sav. (Celastraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-313-82. Japan. US National Arboretum. 51333. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow cover 2-3m, 58 days 50cm or deeper. Minimum temperature -20C. Shrub deciduous, low, 1 m tall. Stems erect, green, little branched. Leaves light green above with impressed veins, pale beneath. Fruit deep pink. Seeds orange, arillate. Growing in deep woodland predominately of *Fagus crenata*. Cuttings taken from several plants. Wild. Cuttings.