

479482 TO 479488-continued

- terminal on branches. Common in mixed woodlands with Betula, Ficea, Acer. Seed from 3 trees. Wild. Seed.
479483. JH-70-82. Japan. US National Arboretum. 51089. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 100m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, 7.6-9m tall, multistemmed in some. Bark smooth, gray. Leaves bright green above, whitish midvein, glaucous beneath. Fruit reddish at maturity. Common in mixed forest in field no. 119. Seed from several plants. Wild. Seed.
479484. JH-174-82. Japan. US National Arboretum. 51191. Collected September 27, 1982. Kushiro Municipal Museum, Tsurugadai Kushiro, Hokkaido. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, 7m tall, upright habit. Bark smooth, whitish. Leaves bright green above. Aggregate follicles turning red. Seed collected from one tree in Akan, Akan-machi and presented to group. Wild. Seed.
479485. JH-187-82. Japan. US National Arboretum. 51204. 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. Tree 12m tall, 40-50 years old. Seed collected from 2 plants. Cultivated. Seed.
479486. JH-283-82. Japan. US National Arboretum. 51302. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 200m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Tree deciduous, 11m tall, upright habit. Bark smooth, light gray. Leaves dark green above, whitish beneath, more or less whorled at twig ends. Fruiting aggregate follicles purplish red. Growing on edge of woodland. Collected from one tree. Wild. Seed.
479487. JH-309-82. Japan. US National Arboretum. 51330. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Seed collected from several plants. Wild. Seed.
479488. Japan. US National Arboretum. 51423. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US National Arboretum by M. Kawase. Collected in Biei-machi. Seed.