

479311 TO 479316-continued
Cuttings.

479317. *Betula apoiensis* Nakai (Betulaceae).

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-254-82. Japan. US National Arboretum. 51272.
Collected October 03, 1982. Botanic Garden, Hokkaido Univ.,
Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg.
22' E. Snow cover for 55 days 50cm or deeper. Minimum
temperature -24C. Shrub deciduous, 1 m tall. Leaves
lustrous, dark green above, pale beneath. Fruiting aments
erect. Cultivated. Seed.

479318 TO 479322. *Betula ermanii* Cham. (Betulaceae) Birch.

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.

479318. JH-28-82. Japan. US National Arboretum. 51049. Collected
September 14, 1982. Kasai Area, Hokkaido Univ., Teshio
Forest, Kam itoikanbetsu, Horonob-cho. 125m. Teshio-gun,
Hokkaido. Tree deciduous, 18.4m tall, 70cm, densely
branched. Bark grayish to silvery. Leaves bright green
above. Fruit erect. Growing in woodland with *Abies*
sachalinensis, *Sasa*, *Vitis*, *Picea glehnii*. Seed from
several trees. Wild. Seed.

479319. JH-50-82. Japan. US National Arboretum. 51068. Collected
September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri,
Horokanai-cho, Uryu-gun, Hokkaido. Snow 1.5-2.5m per
annum. Minimum temperature -35C. Tree deciduous, 19.9m
tall. Twigs dark brown. Bark light gray, very rough in
old trees. Leaves dark green above, lighter beneath,
veins impressed above. Abundant in woodland, growing with
Acer, *Picea* by field marker 320. Seed from single tree.
Wild. Seed.

479320. JH-92-82. Japan. US National Arboretum. 51114. 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. Tree deciduous, reddish
brown, shiny twigs, 7.5m tall. Bark grayish to whitish,