

content, no to low salinity, well drained, tillage impossible due to stoniness. Grassland vegetation. Dense population along both sides of road in moist roadside ditch, near small stream, Moose Mountain Creek and Beaver Dam nearby. Uniform population, effective population size - around 1000 plants. Some heads clippered off possibly by insects, typical population otherwise, red stems. All plants past peak flowering, good seed set. Some rust damage. Associated wild species: Aster, Salix.

PI 592349. *Helianthus nuttallii* Torrey & A. Gray  
Wild. NUT-2320; Ames 22214. Collected 09/12/1994 in Saskatchewan, Canada . Latitude 49 deg. 11' 1" N. Longitude 101 deg. 50' 55" W. Elevation 550 m. 3.8 km west of Carduff, Hwy. 18 W. Brown, sandy soil, level area of roadside ditch, topography - plain (level), moderate soil nutrient content, no salinity, well drained, tillage not affected by stoniness. Cropland vegetation. Large, scattered population in moist roadside ditch. Uniform population, effective population size - several hundred plants. Red stems, green leaves, pubescent bracts, leaves not like *H. maximiliani* but bracts somewhat like *H. maximiliani* (reflexed, long, attenuated). Past flowering and flowering plants, good seed set. Young plants have rust on lower leaves. Associated wild species: Sonchus, Cirsium, Solidago.

PI 592350. *Helianthus nuttallii* ssp. *rydbergii* (Britton) R. Long

Wild. NUT-2322; Ames 22215. Collected 09/12/1994 in Manitoba, Canada. Latitude 49 deg. 50' 31" N. Longitude 101 deg. 16' 48" W. Elevation 544 m. 25.6 km west of Virden, Hwy. 257 W. Brown, sandy soil, roadside ditch. Cropland and grassland vegetation. Population in moist roadside ditch. Uniform population. Red stems, serrate leaves, usually only one to three heads per plant, few plants with axial branching, some very young plants have been cut. Past peak flowering, good seed set. Some plants with moderate rust.

The following were collected by Gerald Seiler, USDA, ARS, Northern Crop Science Lab., P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Received 09/16/1994.

PI 592351. *Helianthus pauciflorus* Nutt.

Wild. PAU-2283; Ames 22216. Collected 09/03/1994 in Manitoba, Canada. Latitude 49 deg. 37' 35" N. Longitude 99 deg. 20' 54" W. Elevation 474 m. 30.4 km north of Glenboro, Hwy. 5 N. Brown, sandy soil, level area of roadside ditch, topography - plain (level), poor soil nutrient content, no salinity, well drained, tillage not affected by stoniness. Located along margin of cultivated field. Scattered population in roadside ditch, near Populus trees. Uniform population, effective population size - 150 plants, population area 100 meters square. Past peak flowering, not many filled heads, seed set questionable. No apparent insect or disease damage. Associated wild species: Populus (Aspen).

The following were collected by Mary Brothers, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Gerald Seiler, USDA, ARS, Northern Crop Science Lab., P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Donated by Gerald Seiler, USDA, ARS, Northern Crop Science Lab., P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Received 09/16/1994.

PI 592352. *Helianthus pauciflorus* Nutt.

Wild. Ames 22219; PAU-2334. Collected 09/14/1994 in Manitoba, Canada. Latitude 49 deg. 50' 51" N. Longitude 99 deg. 41' 58" W. Elevation 369 m. 6.4 km south of Douglas, Hwy. 340 S. Brown, sandy soil, level area of roadside ditch, topography - plain (level), poor soil nutrient content,