

Helianthus annuus L. (Asteraceae)

General shape: Flattish oblong, truncate at the apex with a narrowed base.

Normal size:

Wild type: 4.0-5.0 mm L x 2.0-3.0 mm W x 1.0-2.0 mm D

Cultivated type: 9.0-13.0 mm L x 7.0-9.0 mm W x 4.0-6.0 mm D

Color:

Wild type: Greyish to brown with dark lengthwise streaks and mottling.

Cultivated type: White to black with variable striping.

Texture:

Wild type: Smooth surface with appressed silky hairs and pubescence near the apex.

Cultivated type: Smooth surface.

Distinguishing features:

Wild type: Hairs at the apex are stiff and upward-directed. Small apical rim.

Attachment area notched and smooth.

Cultivated type: No obvious apical rim or obvious hairs. Attachment area has a small notch..

Embryo: Embryo with well-developed cotyledons and a broad stalk having a truncate top, no endosperm.



Helianthus annuus (wild type) achenes



Helianthus annuus (cultivated type) achenes