(1) Germination habit: Epigeal dicot.
(2) Food reserves: Cotyledons which expand and become thin, leaf-like and photosynthetic. In *Brassica*, *Sinapis*, and *Raphanus*, the cotyledons are bilobed and folded, with the outer cotyledon being larger than the inner.
(3) Shoot system: The hypocotyl elongates and carries the cotyledons above the soil surface; the epicotyl usually does not show any development within the test period.
(4) Root system: A long primary root.
(b) Abnormal seedling description.
(1) Cotyledons:
(i) Decayed at point of attachment.
(ii) Less than half of the original cotyledon tissue remaining attached.
(iii) Less than half of the original cotyledon tissue free of necrosis or decay.
(2) Epicotyl:
(i) Missing. (May be assumed to be present if the cotyledons are intact.)
(ii) [Reserved]
(3) Hypocotyl:
(i) Deep open cracks extending into the conducting tissue.
(ii) Malformed, such as markedly shortened, curled, or thickened.
(iii) Watery.
(4) Root:
(i) Weak, stubby, or missing primary root. (Secondary roots will not compensate for a defective root.)
(ii) [Reserved]
(5) Seedling:
(i) One or more essential structures impaired as result of decay from primary infection.
(ii) Albino.

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§ 201.56–4 Cucurbit family, (Cucurbitaceae).

Kinds of seed: Citron, cucumber, West India gherkin, melon, pumpkin, squash, and watermelon.
(a) General description.
(1) Germination habit: Epigeal dicot.
(2) Food reserves: Cotyledons which are large and fleshy; they expand, become photosynthetic, and usually persist beyond the seedling stage.
(3) Shoot system: The hypocotyl elongates and the cotyledons are pulled free of the seed coat, which often adheres to a peg-like appendage at the base of the hypocotyl. The epicotyl usually does not show any development within the test period.
(4) Root system: A long primary root with numerous secondary roots.
(b) Abnormal seedling description.
(1) Cotyledons:
(i) Less than half of the original cotyledon tissue remaining attached.
(ii) Less than half of the original cotyledon tissue free of necrosis or decay. (Remove any attached seed coats at the end of the test period for evaluation of cotyledons.)
(2) Epicotyl:
(i) Missing. (May be assumed to be present if the cotyledons are intact.)
(ii) [Reserved]
(3) Hypocotyl:
(i) Deep open cracks extending into the conducting tissue.
(ii) Malformed, such as markedly shortened, curled, or thickened.
(4) Root:
(i) None.
(ii) Weak, stubby, or missing primary root, with less than two strong secondary or adventitious roots.
(5) Seedling:
(i) One or more essential structures impaired as a result of decay from primary infection.
(ii) Albino.

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§ 201.56–5 Grass family, Poaceae (Gramineae).

Kinds of seed: Bentgrasses, bluegrasses, bluestems, bromes, cereals, fescues, millets, orchardgrass, redtop, ryegrasses, sorghums, timothy, turf timothy, wheatgrasses, and all other grasses listed in § 201.2(h).
(a) Cereals: Agrotricum, barley, oat, rye, mountain rye, wheat, wheat x agrotricum, and triticale.
(1) General description.
(i) Germination habit: Hypogeal monocot.
(ii) Food reserves: Endosperm. The scutellum is a modified cotyledon which is in direct contact with the endosperm. During germination the scutellum remains inside the seed to absorb nutrients from the endosperm and transfer them to the growing seedling.
(iii) Shoot system: The shoot consists of the coleoptile, leaves enclosed in the coleoptile, and the mesocotyl. The