

Nonparasitic Disorders

Juan Osorno,
NDSU Dry Bean Breeder/Geneticist;
and
Sam Markell,
NDSU Extension Plant Pathologist

Baldhead

Seedlings have no growing point. Cotyledons may or may not be attached; often they are broken. A few weak stems may develop from the axils of the cotyledons. Roots may be damaged and grow poorly. The problem is caused by mechanically damaged seed. Damage may be more severe on navy than pinto beans.

Purchase high-quality seed. Seed producers should thrash full windrows, harvest when pods are limber and use low cylinder speeds. Carefully handle seed during conditioning and shipping.

Bronzing

Upper leaf surfaces are covered with small golden-brown spots that make the leaf appear bronze. Bronzing maybe caused by ozone from industrial or urban pollution or meteorological phenomena.

Chimera

Genetic abnormalities may occur in plants, resulting in variegated leaves with patches of green, yellow and/or white tissue. Some branches or the entire plant may be affected. Pods also may be affected. Cool temperatures (below 61 F) for long periods during germination may increase the frequency of leaf variegations.

Sunscald

Small brown patches appear between the main veins. These expand, developing into large areas of dead tissue between apparently sound green veins. Sunscald is most likely to occur when warm, sunny and windy weather follows cool, cloudy and humid weather.