

Brown spots on apples

08.01.2016 Q&A:

Q: My father's apples are developing brown spots that seem to be getting worse now that he has started to harvest them. These spots appear to be sunken and spongy.

A: It appears that the apples may have Bitter Pit disorder. Bitter Pit is a disease found in apples, pears, and quinces and is not thoroughly understood.

At the earliest stages of development, bitter pit lesions, which usually occur near the fruit's calyx, start as small, water-soaked spots on the skin. These spots gradually turn a deeper color that may start from inside the fruit and results in small brown bruises or blemishes on the skin of the apple. With time the spots become slightly sunken, and the underlying dark brown tissue dries and becomes spongy or corky. Generally symptoms do not fully develop until after 1 or 2 months of storage.

This condition typically occurs a few weeks before harvest; however, there may be no evidence of bitter pit disorder until after harvest. The spots typically turn darker and become more sunken after they are harvested and stored.

Bitter Pit disorder is related to orchard conditions, especially variations in watering. In some cases it is brought on by excessive water late in the growing season. Apparently, it occurs when there is competition for water between the fruit and the leaves, in which the leaves have the advantage.

Fruit grown on more upright and leafy branches have greater potential to develop bitter pit than fruit grown on spurs and horizontal branches near the main trunk. Young trees are also more susceptible than older trees.

It is important to maintain a constant soil moisture supply throughout the growing season. Excessive vegetative growth should be reduced in trees. (However, early thinning or over thinning can also increase bitter pit.) Over fertilizing and/or harvesting too early may cause an increase in bitter pit symptoms.

Some cultivars are more susceptible than others, including: Granny Smith, Yellow Newtown, Jonathan, Golden Delicious (California), Gravenstein, Red Delicious (California), Baldwin, Boskoop, Bromley's Seedling, Cleopatra, Cox's Orange Pippin, Grimes Golden, Merton, Rhode Island Greening, Worcester, Stayman (Canada), Sturmer, White Winter Pearmaine, Prima Starking, Starkrimson, Marigold, Northern Spy, and York Imperial.