

Citrus Fruit Splitting

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FIG. 1

Type Problem: Plant Disorder

[Plant pathologists usually group causes of plant health problems or diseases into two categories. Some diseases in plants are caused by non-living factors including environmental stress or improper cultural practices. This category of diseases is referred to by a variety of names. The term 'Plant Disorder' is utilized herein. Other equivalent terms and references include 'abiotic diseases', 'physiological disorders', 'non-parasitic diseases', 'non-infectious diseases', and 'non-pathogenic diseases'.

Other plant diseases are caused by a living pathogen (or by two or more living pathogens) including fungi, bacteria, viruses, and nematodes. This category of diseases is referred to by a variety of names including 'biotic diseases', 'parasitic diseases', 'pathogenic diseases', and 'infectious diseases'.]

Citrus Varieties Affected

- Navel oranges are the worst, followed by tangelos and other oranges and mandarins. Grapefruit rarely split

Period of Primary Occurrence: July through early September

- Splitting may start as early as July, with most occurring in late August and early September
- Some years are worse than others, but the problem tends to become less severe as tree matures

Description / Symptoms

- The rind splits when water and sugars are transported from the roots of the tree to the ripening fruit and rind is unable to expand quickly enough to accommodate the added volume (Fig. 1-7)
- Splitting seems to be caused by a combination of factors including extreme fluctuations in temperature, humidity, soil moisture and fertilizer levels
- Splitting varies seasonally and is usually greatest where crop load is heavy
- Split usually starts at the blossom end of the fruit (which is the weakest point in the rind)
- Split can be short and shallow or deep and wide, exposing the segments of the juice vesicles (Fig. 1,2-4)
- Fruit on young trees are more prone to fruit splitting than fruit on older trees
 - Splitting wastes the fruit, and creates a good breeding ground for fruit flies, so the split fruit should be removed and treated



FIG. 2



FIG. 3



FIG. 4

Best Management Practices (BMP)

- Maintain optimal growing conditions, including supplying sufficient water and nutrients
- Low to deficient potassium levels result in a thin peel which promotes splitting
- Use mulch and compost to help maintain uniform moisture levels
- Use of slow release fertilizers helps provide a more uniform level of nutrient uptake



FIG. 5



FIG. 6



FIG. 7

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas AgriLife Extension Service is implied.

Use pesticides only according to the directions on the label. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. If the information does not agree with current labeling, follow the label instructions. The label is the law.

Always remember to read and heed six of the most important words on the label: "KEEP OUT OF REACH OF CHILDREN"

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