Bitter pit and blossom end rot

GWF209
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Blossom end rot on tomatoes and bitter pit on apples may appear to be two completely different problems but they are both caused by the same environmental conditions.

APPLES

Q What is bitter pit?

A Bitter pit is a physiological disorder which only affects apples. It causes small, dark, slightly sunken patches on the skin and brown specks in the fruit.

Q What causes this problem?

A It is caused by a lack of calcium. This may be because there is not enough calcium in the soil, but more often it is linked to lack of water, or a very heavy fruit crop. Either of these factors can mean that not enough calcium is carried to the fruit, so it does not develop properly.

Q Can I still eat the apples?

A Yes, the fruit can be used although, if the bitter pit is extensive, the fruit may be unpalatable. Fruit with bitter pit does not store well as the damaged areas tend to rot.

Q Can it be cured?

A You can't cure it once the apples are damaged but you can help to prevent it in future seasons. First, try improving the tree's water supply. Mulch in spring, when the soil is moist but not saturated. Our tests show that black polythene or grass clippings are both very effective. If you dislike their appearance, cover with chipped bark. In very dry spells - when the soil is still dry 30 cm down - water at the rate of 20 to 50 litres weekly per tree depending on the size of the tree. Repeat this until there is a good downpour. Combine this with summer pruning and fruit thinning to reduce the size of the crop.

If your soil is acid, you should add enough lime to raise the pH to around 6.5. If this does not do the trick, spray the tree with calcium nitrate solution (50g per 5 litres) from late July every three weeks to late October. Calcium nitrate is available in some garden centres, or by post from Garden Direct, 40 Hillgrove Business Park, Nazeing, Essex EN9 2BB
01992 890770

Q Does this happen to all apples trees every year?

A Bitter pit doesn't usually occur every year, but some varieties are more susceptible than others. Young vigorous trees are often worst affected. Avoid the most susceptible varieties like 'Bramley Seedling', 'Cox's Orange Pippin', 'Crispin' ('Mutsu'), 'Egremont Russet', 'Gala', 'Golden Delicious', 'Jonagold', 'Jupiter', 'Merton Worcester' and 'Newton Wonder'.

TOMATOES

Q What is blossom end rot?

A This is a physiological problem and causes dark, leathery patches at the blossom end of the fruits. It is not a disease.

Q What causes this problem?

A The immediate cause is a shortage of calcium in the developing fruit.

Q Can I just add extra calcium to the soil?

A Unfortunately this problem does not usually mean that the soil, or compost, is deficient in calcium, rather that the plant does not have a sufficiently steady water supply to deliver it to the fruit. This problem is most common with tomatoes grown in growing bags, as it is difficult to keep these well watered.

Q Can I still eat the tomatoes?

A Yes. If the tomato is ripe, then the dark patch can be cut out and the rest eaten. If it is not ripe, the damage is likely to prevent further development, and affected fruit are best removed.

Q Can blossom end rot be cured?

A You can't cure a tomato once it is damaged but you can help to prevent the problem getting worse or damaging other fruit. Try to reduce the temperature of the greenhouse or growing area by shading and/or ventilation and water more frequently. If you are using growing bags lying on soil keep the soil well watered and cut slits in the base of the growing bags so the roots can explore further for water – this will not lead to disease problems in the soil.

To prevent the problem in future, avoid growing bags if possible. Either grow tomatoes by ring culture, or in large (30cm) tubs or in growing bags cut in half and stood on end to make two deep bags of compost.

Ring culture involves growing your tomato plants in large (22-26cm), bottomless pots. These should be filled with compost and stood on to a water-retaining, though free-draining base, such as a shallow trench lined with polythene and filled in with gravel. Water from the bottom via the gravel bed and feed via the pot. This way the tomatoes have a free-draining system with water and feed available as and when they need it.