**High-Temperature Effects**

Plants are generally injured faster and to a greater extent

when temperatures become higher than the maximum

for growth than when they are lower than the minimum.

However, too high a temperature rarely occurs in

nature. High temperature seems to cause its effects on

the plant in conjunction with the effects of other environmental

factors, particularly excessive light, drought,

lack of oxygen, or high winds accompanied by low relative

humidity. High temperatures are usually responsible

for sunscald injuries (Figs. 10-2A and 10-2B)

appearing on the sun-exposed sides of fleshy fruits and

vegetables, such as peppers, apples, tomatoes, onion

bulbs, and potato tubers. On hot, sunny days the temperature

of the fruit tissues beneath the surface facing

the sun may be much higher than that of those on the

shaded side and of the surrounding air. This results in

discoloration, a water-soaked appearance, blistering,

and desiccation of the tissues beneath the skin, which

leads to sunken areas on the fruit surface. Succulent

leaves of plants may also develop sunscald symptoms,

especially when hot, sunny days follow periods of

cloudy, rainy weather. Irregular areas on the leaves

become pale green at first but soon collapse and form

brown, dry spots. This is a rather common symptom of

fleshy leaved houseplants kept next to windows with a

southern exposure in early spring and summer when

solar rays heat the fleshy leaves excessively. Too high a

soil temperature at the soil line sometimes kills young

seedlings (Fig. 10-2C) or causes cankers at the crown on

the stems of older plants (Fig. 10-2D). High tempera-

tures also seem to be involved in the water core disorder

of apples and, in combination with reduced oxygen,

in the blackheart of potatoes.