HAIL INJURY

Depending on the stage of development of the plant, the

size of the hail, and duration of the hail storm, damage

to crops from hail may be small, intermediate, or complete

(Figs. 10-16); in the latter case, all plants are

destroyed by the hail.

LIGHTNING

Lightning is a rather rare event in most locations but it

does occur and in some locations, e.g., central Florida,

it occurs quite frequently. When lightning strikes a tree,

the trunk or main branches may crack (Fig. 10-17A,B),

tip over, or fall. Fields, however, may also be hit by

lightning either directly (Figs. 10-17C, 10-17E, and

10-17F) or indirectly by hitting a taller object, such as

a tree or pole (Fig. 10-17F), and then distributed to the

field. In either case, plants in the field may receive an

electric shock but survive it, but more frequently many

plants in the path or immediate vicinity of the lightning

are killed in characteristic configurations (Figs. 10-17C

and 10-17D) or in a circular area (Figs. 10-17E and

10-17F).

OTHER IMPROPER AGRICULTURAL

PRACTICES

As with herbicides, a variety of other agricultural practices

carried out improperly may cause considerable

damage to plants and significant financial losses. Almost

every agricultural practice can cause damage when

applied the wrong way, at the wrong time, or with the

wrong materials. Most commonly, however, losses result

from the application of chemicals, such as fungicides,

insecticides, nematicides, and fertilizer, at too high concentrations

or on plants sensitive to them. Spray injury

resulting in leaf burn or spotting or russeting of fruit is

common on many crop plants (Fig. 10-15C).

Excessive or too deep cultivation between rows of

growing plants may be more harmful than useful

because it cuts or pulls many of the plants’ roots. Road

or other construction often cuts a large portion of the

roots of nearby trees and results in their dieback and

decline. Inadequate or excessive watering may cause

wilting or any of the symptoms described earlier. In the

case of African violets, droplets of cold water on the

leaves cause the appearance of rings and ring-like patterns

reminiscent of virus ringspot diseases. Potatoes

stored next to hot water pipes under the kitchen sink

often develop black heart. Trees frequently grow poorly

and their leaves are chlorotic, curled, or reddened

because their trunk is girdled by fence wire. The roots

of plants potted in pots that are too small for their size

are often badly distorted and twisted and the whole

plant grows poorly (Fig. 10-1).