Gray Snow Mold

(*Typhula* blight)

Gray Snow Mold (*Typhula sp.)*

Sclerotia of Gray Snow mold germinating to produce more infection spores.


Gray snow mold
60-90 days of
snow cover
required

Gray Snow Mold

Gray Snow Mold

- Sclerotia in summer
- Cool, wet weather favors germination
- Disease develops on unfrozen soil under snow

Management of Gray Snow Mold

1. Avoid heavy late fall fertilization
2. Mow grass to avoid snowfall on a tall canopy
3. Apply fungicides in late fall to stop germination of sclerotia

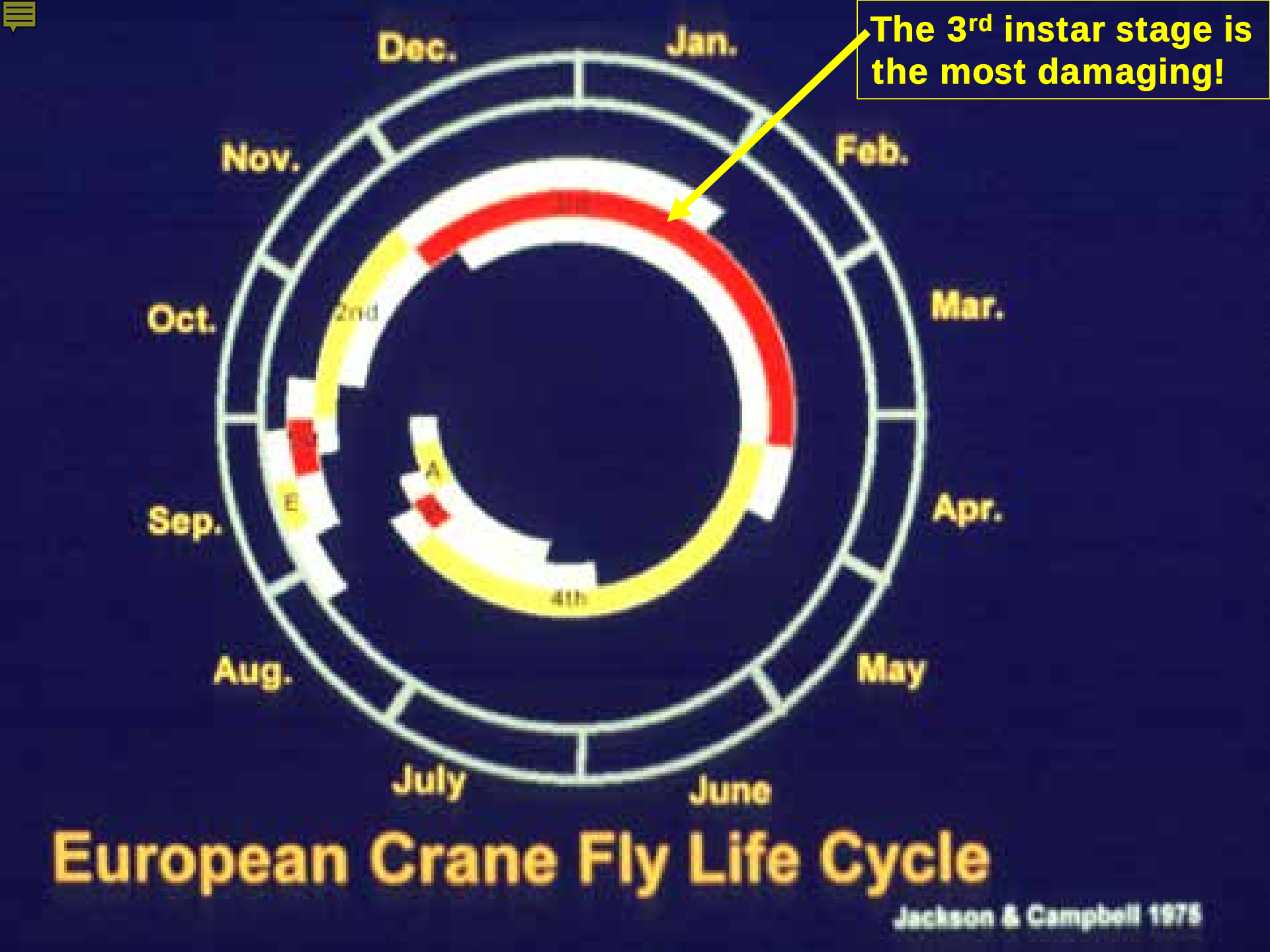
Management of Gray Snow Mold

4. Repeat fungicide applications at mid-winter thaws.

5. Remove snow, rake matted grass, and promote rapid drying of area.

European crane fly

Female European crane fly laying eggs in turfgrass in fall


The 3rd instar stage is the most damaging!
Dec.
Jan.
Feb.
Mar.
Apr.
May
June
July
Aug.
Sep.
Oct.
Nov.
2nd
3rd
4th
A
E
European Crane Fly Life Cycle
Jackson & Campbell 1975

European crane fly eggs


European crane fly larvae,
third instar stage

European crane fly damage

- Fertilize-- turf may grow out of the problem
- Manage when populations reach 25-40 craneflies/square foot

Sod Webworms

Pedasia trisecta

Chrysoteucia topiaria

Sod Webworms

- Overwinter as larvae
- April – larvae feed on turf roots and stems
- May – larvae pupate

Sod Webworms

- June – females lay eggs

- June and July – eggs hatch and larvae feed on grass until fall


Sod webworm
damage


Frass (excrement) of a
sod webworm larva

Chinch bugs

Blissus spp.


Chinch bugs

Chinch bugs

- Small black bug, .3 to .6 inch long with white marks on wings
- Bugs feed by sucking plant juices
- Grass yellows and dies

Chinch bugs

- Damage is seen in mid to late summer. Drought-stressed lawns show more severe damage.
- High levels of endophytes seem to repel chinch bugs.

Predators of Chinch Bugs

- Big-eyed gug (*Geocoris* spp.– oval body, big eyes)
- Lady beetles, earwigs, ants

Billbugs

Sphenophorus sayi: Say's billbug

S. parvulus: bluegrass billbug

S. cicatristriatus

Billbug

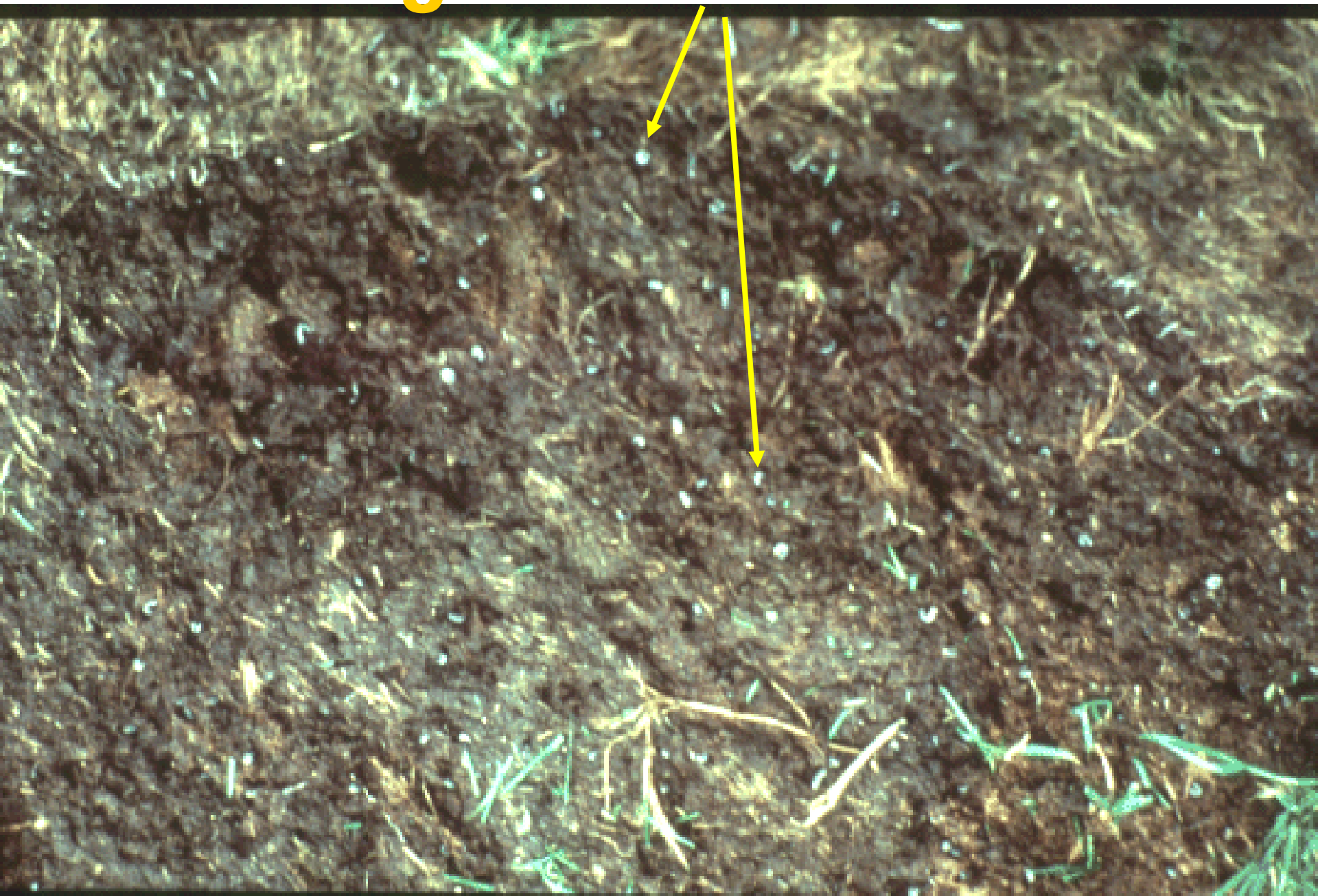
Billbugs

- During late summer or early fall, larvae pupate into beetles and hibernate in thatch.

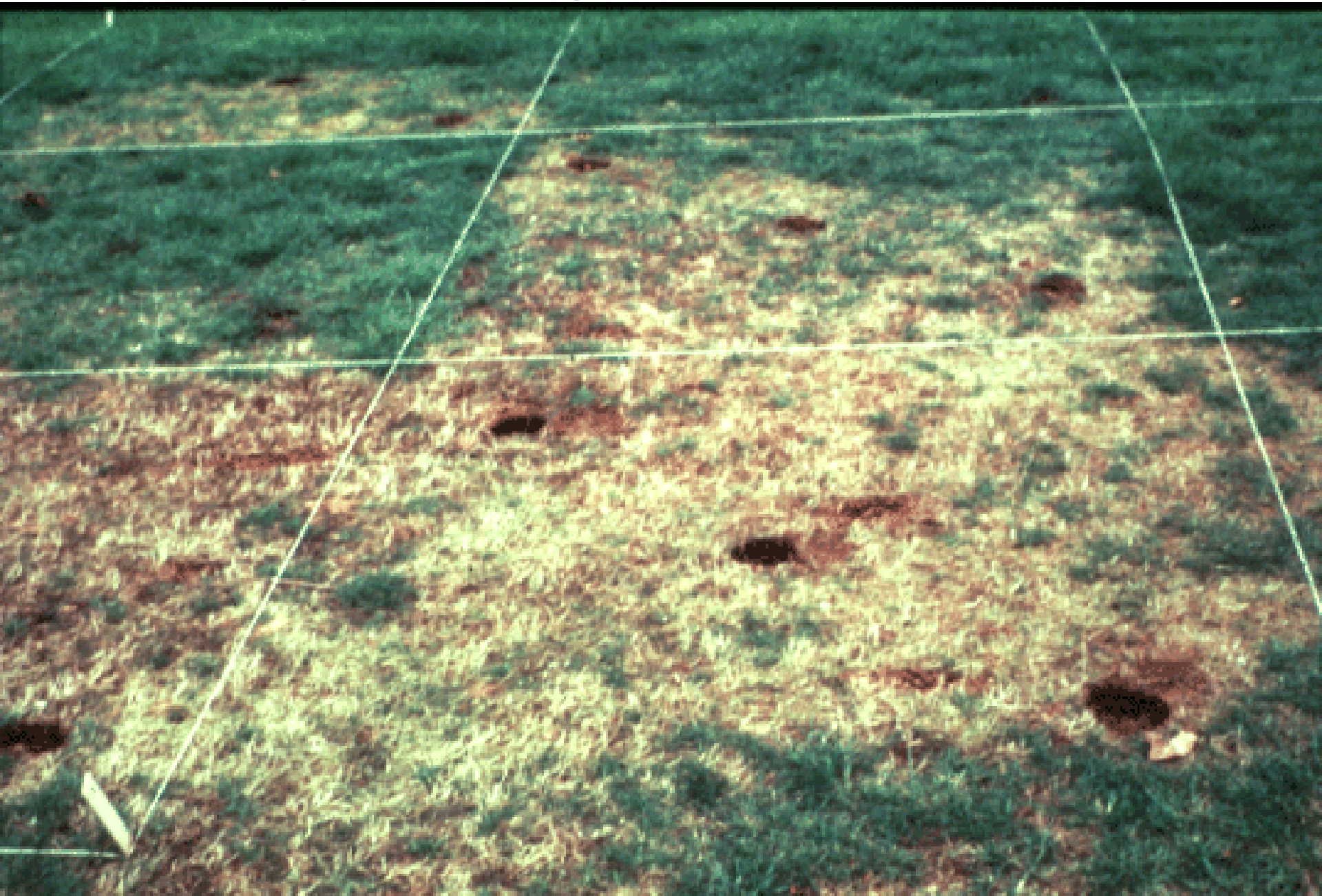
Billbugs

- Overwinter as adults.
- In spring, females lay eggs in grass stems.
- Larvae hatch and feed on stem and move to soil to feed on stem and move to soil to feed on crown and roots. This stage causes the most damage.

Billbug larvae in the soil



Billbug damage on a home lawn



ENDOPHYTES IN TURFGRASS

About 1980, reports of insect resistance were made in turfgrasses and the presence of an endophytic fungus was found in the tissues of resistant cultivars

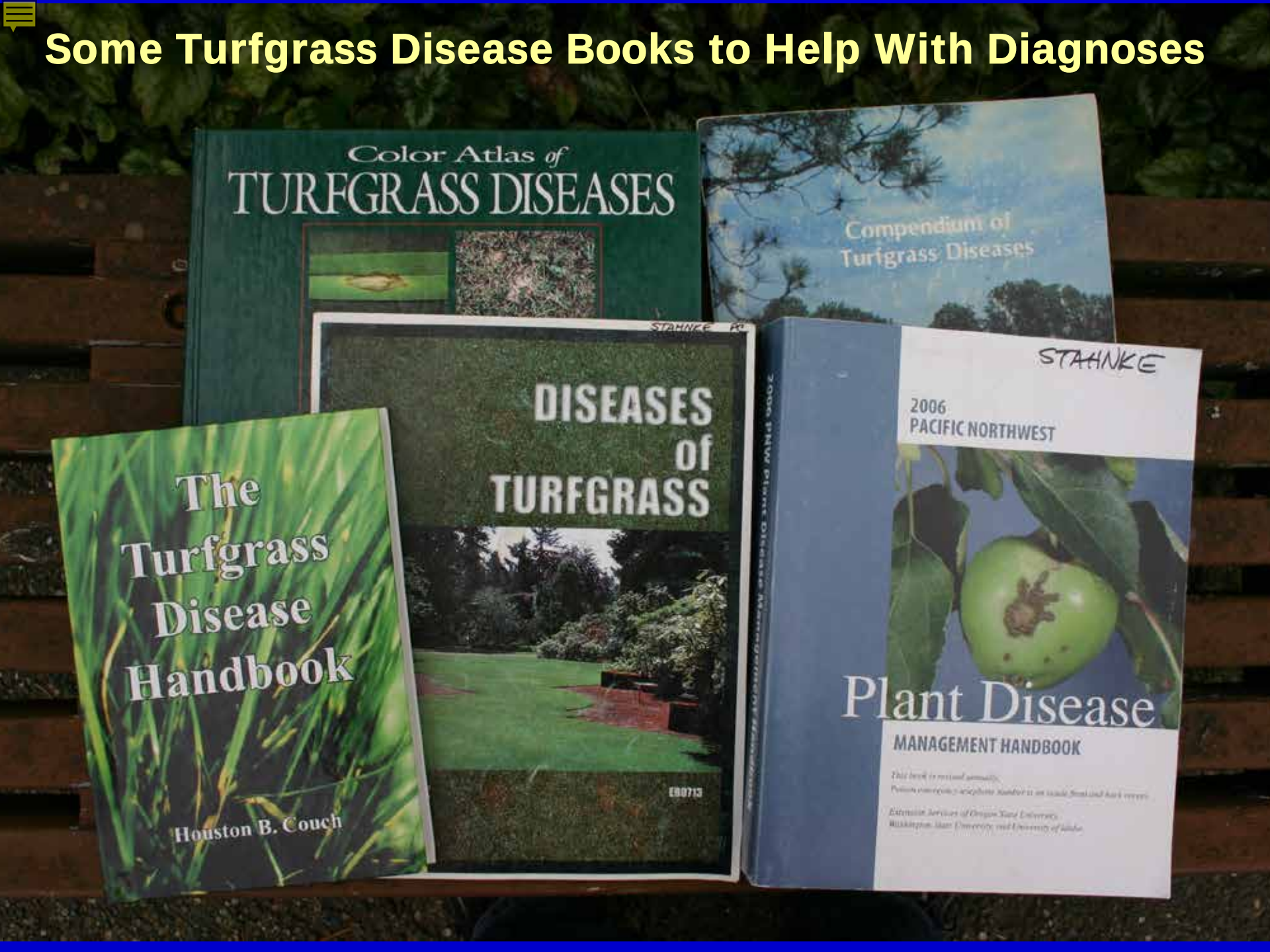
ENDOPHYTES

Higher levels of endophytes showed increased resistance to bluegrass billbugs, sod webworms, chinch bugs, armyworms, and possibly nematodes.

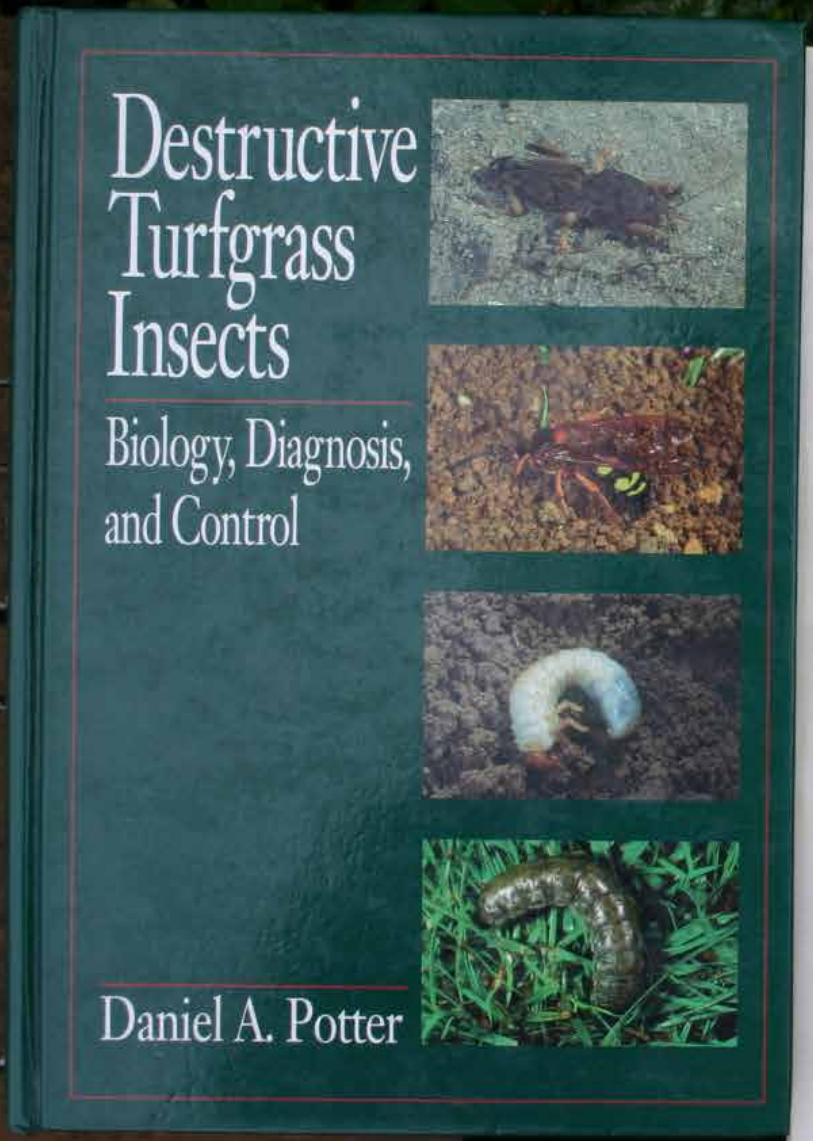
IPM at work!

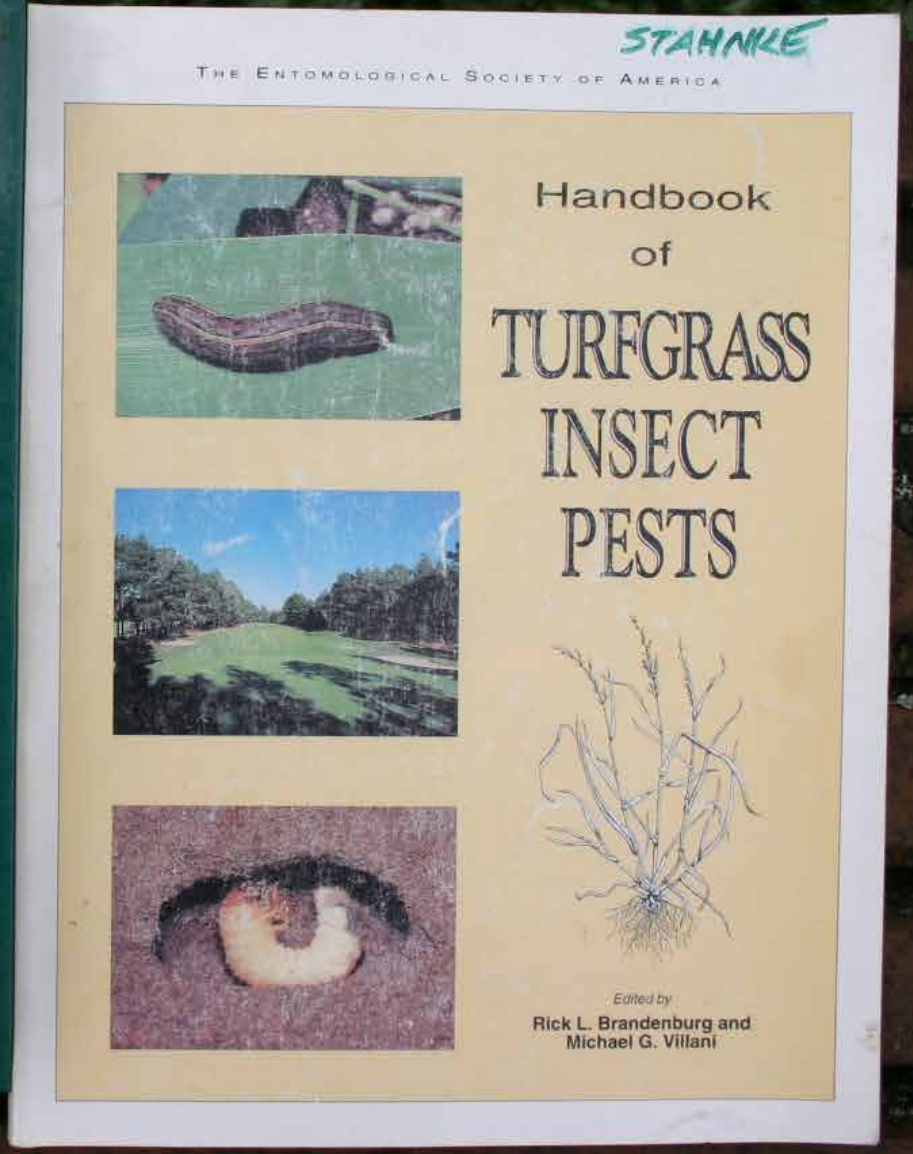
School Landscape Bed Weeded by a Cub Scout Troop

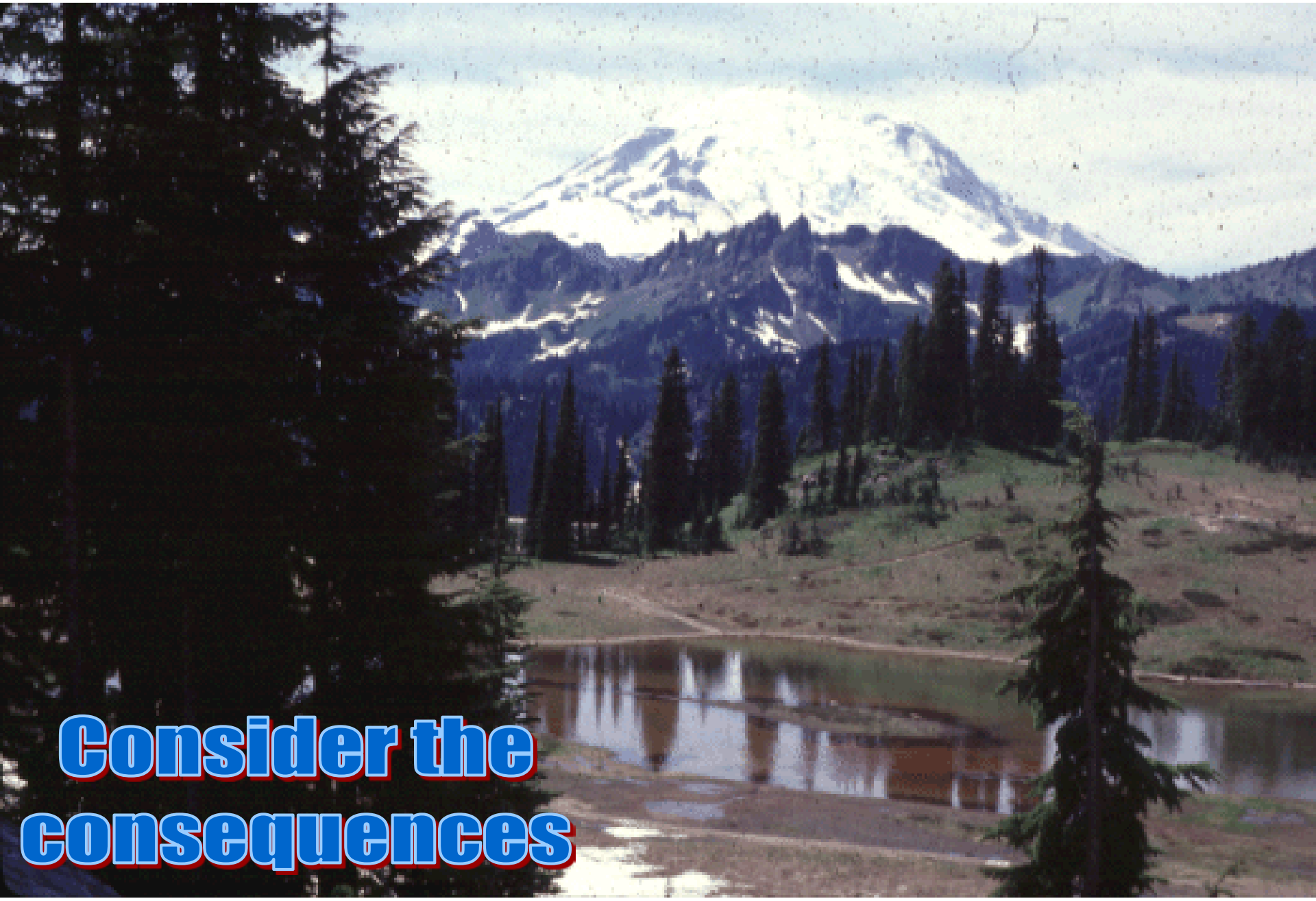
Some Turfgrass Disease Books to Help With Diagnoses



A Few Books To Help With Turfgrass Insect Identification






Consider the
consequences