

Scouting Calendar and Injury Diagnostic Guide

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Knowing when to scout and treat for pests and how to correctly identify the causes of plant injury are key elements of a successful crop production and pest management program. The following *Sugarbeet Scouting Calendar* and *Injury Diagnostic Guide* can be used as preliminary aids in countering insect, weed, and disease pressures and identifying potential causes of crop injury. More detailed information about pest scouting and treatment and recommended practices to avoid plant injury is provided in individual chapters.



Figure 15.1

Begin sampling for sugarbeet root maggot adults in early to mid May with peak fly activity in late May or early June.



Figure 15.2

Identify weeds early in the growing season so they can be effectively controlled.

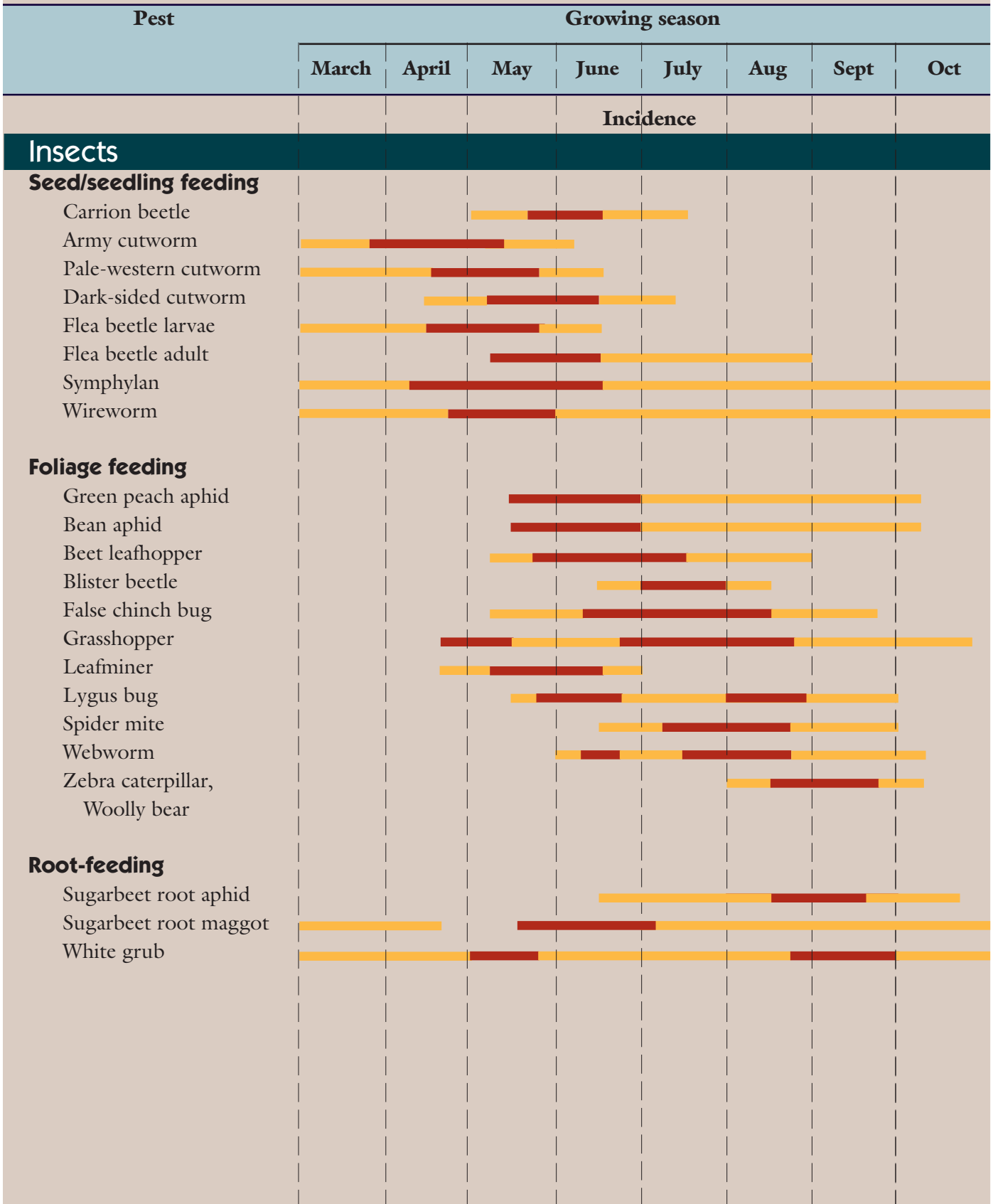


Figure 15.3

Begin scouting fields for wilting plants in early June. Root symptoms of *Rhizoctonia* root rot consist of small circular lesions that coalesce to form larger areas of rotted tissues.

Sugarbeet Scouting Calendar

■ indicates the presence of the pest
■ indicates period of greatest risk



Pest	Growing season							
	March	April	May	June	July	Aug	Sept	Oct
Incidence								
Diseases								
Aphanomyces root rot								
Cercospora leaf spot								
Cyst nematode								
Fusarium yellow								
Phoma leaf spot								
Powdery mildew								
Rhizomania								
Rhizoctonia root rot								
Weeds								
Broadleaf								
Canada thistle								
Cocklebur								
Jimson weed								
Kochia								
Lambsquarter								
Nightshade								
Pigweed								
Puncture vine								
Ragweed								
Redstem filaree								
Russian thistle								
Toothed spurge								
Smartweed								
Sunflower								
Velvetleaf								
Venice mallow								
Wild buckwheat								
Grass								
Barnyardgrass								
Foxtail								
Sandbur								
Quackgrass								
Wild oats								
Wild proso millet								

Sugarbeet Injury Diagnostic Guide

Sugarbeet growth stage	Plant symptom	Probable cause	
Emergence to two true leaves	Seeds cracked open, contents eaten Stand reduction	Mouse damage	
Emergence to six true leaves		Aphanomyces Damping-off Moisture stress Freeze damage Army cutworms Grasshoppers Wind damage Herbicide injury Insecticide injury	
	Cotyledons blackened, dried	Freeze damage Wind damage	
	Black, thread-like hypocotyl with no wilting of cotyledons	Aphanomyces	
	Plants dying with roots turning black	Flea beetle larval damage Sugarbeet root maggot	
	Defoliation of leaves	Cutworms Grasshoppers Carrion beetle	
	Shot-hole feeding on leaves	Flea beetle	
	Leaves wilting, especially during heat of day	Sugarbeet root maggot Wireworm White grubs Moisture stress <i>Fusarium</i> <i>Aphanomyces</i> <i>Rhizoctonia</i> <i>Pythium</i> Rhizomania Cyst nematode	
	Leaf spot/blotches	<i>Phoma</i> Leafminer	
	Two to six true leaves	Yellowing of leaves	Herbicide injury Nitrogen deficiency <i>Fusarium</i> <i>Aphanomyces</i> Rhizomania Cyst nematode
		Browning of leaf margins	Herbicide injury Insecticide injury Wind damage Frost damage
Twisted stems and cupped leaves		Herbicide injury Insecticide injury	

Sugarbeet growth stage	Plant symptom	Probable cause
Six to sixteen true leaves	Defoliation of leaves	Grasshoppers Blister beetles Webworms
	Leaves wilting	Sugarbeet root maggot Fusarium Aphanomyces Rhizomania Cyst nematode Moisture stress
	Tip of leaves yellowing	Lygus bug Herbicide injury
	Yellowing of leaves	<i>Fusarium</i> <i>Aphanomyces</i> Rhizomania Cyst nematode Herbicide injury
	Twisted stems and cupped leaves	Herbicide injury Curly top
	Leaf spot	<i>Phoma</i> <i>Cercospora</i>
Sixteen true leaves to maturity	White waxy material on roots and soil	Sugarbeet root aphid
	Leaves wilting, lower leaves dying, plants stunted	Moisture stress <i>Fusarium</i> <i>Aphanomyces</i> <i>Rhizoctonia</i> <i>Pythium</i> Rhizomania Sugarbeet root aphid Cyst nematode White grubs
	Defoliation of leaves	Grasshoppers Webworms Zebra caterpillar Woolly bears
	Yellowing of leaves	<i>Fusarium</i> <i>Aphanomyces</i> Powdery mildew Rhizomania Cyst nematode Nitrogen deficiency
	Leaf spot	<i>Cercospora</i> <i>Phoma</i>
	Twisted stems and cupped leaves	Herbicide injury

