Sunflower XIV-9

Painted Lady Butterfly

Frank B. Peairs

painted lady larva

Field Biology and Identification

The larval stage is known as the thistle caterpillar, while the adult stage of the insect is known as the painted lady. The adult butterfly has a wingspread of 50 millimeters (two inches); the upper wing surface is brown with red and orange mottling and white and black spots. The larvae are light brown to black, spiny, with a pale yellow stripe on each side. Mature larvae are 30 to 35 millimeters (1¼ to 1½ inches) in length. The painted lady butterfly is indigenous to the southern regions of the United States and migrates annually to the northern regions and Canada. Adults appear in May and June. Small, spherical, white eggs are laid on Canada thistle and other food plants. Larvae will feed on the foliage of many different plants and reach maturity in early July.

Plant Response and Damage

Larvae feed on leaves by chewing large holes. When numerous larvae may completely strip infested plants. Larvae can often be detected by the presence of a loose silk webbing.

Management Approaches

Biological Control

Larvae are parasitized by wasps and Tachinid flies. They are susceptible to Bacillus thuringiensis-based insecticides.

Chemical Control

In monitoring the field, use the X-pattern counting 100 plants per sampling site for a total of 500 plants to determine percent defoliation. While it is fairly unusual to experience economically significant infestations with this pest, consider a treatment if defoliation averages 25 percent on the plants examined. Alternatively, use the table below to determine the potential yield loss from the observed level of defoliation. Insecticide treatments are only recommended when the majority of larvae are under 30 millimeters

(1¼ inches) in length, because larger larvae are about to stop feeding. Infestations are often concentrated in areas of a field where Canada thistle plants are abundant.

Estimated % yield reduction from sunflower defoliation occurring at various growth stages (From North Dakota State University Extension Bulletin 25)

	Percent Defoliation									
	10	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
Growth Stage	**Expected percent yield loss**									
V-4 to V-5	0	1	2	2	4	4	5	9	14	21
V-9 to V-11	0	2	3	4	5	5	7	11	17	24
R-1	2	4	6	6	7	9	16	24	34	47
R-3	2	8	15	19	24	32	44	59	78	99
R-5	1	3	7	10	16	25	37	49	67	90
R-7	0	1	3	7	10	13	16	18	20	22
R-8	0	1	2	3	5	7	8	9	10	11

Categories: Sunflower, Insects, Painted lady butterfly

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