



# Almonds: Dormant Spur Sampling

Supplement to UC IPM Pest Management Guidelines: Example Form

## Directions:

- To monitor for San Jose scale (SJS), European fruit lecanium (EFL), and mites, clip off 2 to 3 spurs randomly from each of 35 to 50 trees in the orchard, for a total of 100 spurs.
- Using a hand lens or microscope, examine spurs for scales and mite eggs.
- On the form below, note presence or absence of each pest on each spur for the first 20 spurs. Add up totals after every 20 spurs (including previous samples) and compare to treatment decision guidelines below. Continue as needed using page 2.

Grower/Orchard \_\_\_\_\_

Date \_\_\_\_\_

Spur number	Live SJS	Parasitized SJS	EFL	Mite eggs	Scab
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
<b>Total</b>					
<b>Treatment threshold</b>	<b>4 or more</b>	<b>Information only</b>	<b>4 or more</b>	<b>See below</b>	<b>See below</b>

### Treatment decisions:

- If either SJS- or EFL- infested spurs are less than 4 but more than 0, examine another 20 spurs and record on chart to the right.
- If 4 or more unparasitized scales of one species are found, treat.
- If no samples with scale are found, stop sampling.
- Collect 40 spurs before making a treatment decision for mites and scab.

Spur number	Live SJS	Parasitized SJS	EFL	Mite eggs	Scab
<i>Totals from prior sample</i>					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
<b>Total</b>					
<b>Treatment threshold</b>	<b>8 or more</b>	<b>Information only</b>	<b>8 or more</b>	<b>8 or more</b>	<b>4 or more</b>

### Treatment decisions:

- If grand total of SJS- or EFL-infested spurs is less than 8 but more than 1, look at another 20 spurs and record on the chart to the right.
- If 8 or higher, stop sampling and treat.
- If 1, stop sampling.
- Treat for mites if 20% or more spurs are infested.
- Treat for scab if 10% or more spurs are infested.

Spur number	Live SJS	Parasitized SJS	EFL	Mite eggs	Scab
<i>Totals from prior sample</i>					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
<b>Total</b>					
<b>Treatment threshold</b>	<b>12 or more</b>	<b>Information only</b>	<b>12 or more</b>	<b>12 or more</b>	<b>6 or more</b>

### Treatment decisions:

- If grand total of SJS- or EFL-infested spurs is less than 12 but more than 3, look at another 20 spurs and record on the chart on page 2.
- If 12 or higher, stop sampling and treat.
- If 3 or less, stop sampling.
- Treat for mites if 20% or more spurs are infested.
- Treat for scab if 10% or more spurs are infested.

# Almonds: Dormant Spur Sampling *(continued)*

Spur number	Live SJS	Parasitized SJS	EFL	Mite eggs	Scab
<i>Totals from prior sample</i>					
61					
62					
63					
64					
65					
66					
67					
68					
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					
<b>Total</b>					
<b>Treatment threshold</b>	<b>16 or more</b>	<b>Information only</b>	<b>16 or more</b>	<b>16 or more</b>	<b>8 or more</b>

**Treatment decisions:**

- If grand total of either SJS- or EFL-infested spurs is less than 9 but more than 5, look at another 20 spurs and record on chart to the right.
- If 16 or higher, stop sampling and treat.
- If 5 or less, stop sampling.
- Treat for mites if 20% or more spurs are infested.
- Treat for scab if 10% or more spurs are infested.

Spur number	Live SJS	Parasitized SJS	EFL	Mite eggs	Scab
<i>Totals from prior sample</i>					
81					
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					
<b>Total</b>					
<b>Treatment threshold</b>	<b>20 or more</b>	<b>Information only</b>	<b>20 or more</b>	<b>10 or more</b>	

**Treatment decisions:**

- If grand total of either SJS- or EFL-infested spurs is 20 or more, treat.
- If less than 20, no treatment is recommended.
- Treat for mites if 20% or more spurs are infested.
- Treat for scab if 10% or more spurs are infested.