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# Cotton— Spider Mite, Aphid, and Whitefly Monitoring

## Supplement to UC IPM Pest Management Guidelines: Cotton

- Directions:**
1. Beginning at least 50 paces into the field, pick a plant at random and turn over the 5<sup>th</sup> leaf from the terminal. Examine the underside of the leaf with a hand lens.
  2. Count the aphids and record the number and color.
  3. Check for presence (+) or absence (-) of spider mites and record on the form.
  4. Check for whitefly adults. If 3 or more are present, note the leaf as infested on the form.
  5. Note the presence (+) or absence (-) of large whitefly nymphs in the area defined by a leaf disc.
  6. Move 20 paces further into the field and select another plant to examine. Repeat the steps above in 4 representative areas of the field for a total of 40 plants.
  7. Compute average infestation levels and compare with treatment thresholds.
  8. Check field edges for whitefly migration.

Grower \_\_\_\_\_ Field \_\_\_\_\_ Date \_\_\_\_\_

Plant number	Aphids		Spider mites	Whitefly		Natural enemies (Note species)
	Count	Yellow or Black	(+ or -)	Adults: (+ if 3 or more)	Nymphs: (+ or -)	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

### Cotton—Aphid, Whitefly, and Spider Mite Monitoring (continued)

Plant number	Aphids		Spider mites	Whitefly		Natural enemies (Note species)
	Count	Yellow or Black	(+ or -)	Adults: (+) if 3 or more	Nymphs: (+ or -)	
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
	<b>Total:</b>		<b>Total:</b>	<b>Total:</b>	<b>Total:</b>	
	<b>Average:</b>		<b>Percent infested:</b>	<b>Percent infested:</b>	<b>Percent infested:</b>	
<b>Treatment threshold:</b>						
	<b>Aphids:</b> First square to open boll: 50-75 aphids per leaf. After open boll: 10-15 small yellow aphids or large black aphids per leaf.		<b>Spider mites:</b> 30-50% leaves infested.	<b>Whitefly:</b> Adults: 40%. Do not use IGRs if nymphs absent. If no nymphs, but 10 or more adults per leaf, treat field edges only if infestation limited to edges. Nymphs: 40%.		

