

Dormant Sprays & Scale

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Over the last few years, we have seen a huge decline in the number of dormant sprays applied to almonds in our area. In fact, the majority of almond growers in the northern San Joaquin Valley are not dormant spraying anymore. Despite this lack of spraying, rejects due to insect feeding continue to be very low, even almost zero in some unsprayed orchards in 2002. Certainly, the “dilution effect” and tight shell seal we often see in heavy production years can explain part of this. In any case, the northern San Joaquin Valley continues to produce the cleanest almonds in the state.

Our research trials that are comparing differing pest management programs (including not spraying at all for worms – dormant or in-season) have shown no differences in moth catches or worm damage at harvest between treatments for four years. Although this data shows that not all almond orchards need to be sprayed every year, some orchards need to be sprayed sometimes. Our problem is that pheromone traps can tell us WHEN to spray during the season but we can't predict well IF we need to spray for peach twig borer (PTB), especially during the dormant period. Although it is great we can reduce costs while spraying fewer pesticides, I will always be a little nervous skipping the dormant spray every year until we develop better monitoring techniques for overwintering PTB.

San Jose Scale. San Jose scales suck plant juices from limbs and inject a toxin, resulting in loss of tree vigor and limb death. Untreated infestations can kill spurs and eventually large limbs. Shoot death normally is most severe on the lowest limbs of the tree.

We are very fortunate that in the northern San Joaquin Valley, we have large parasite populations that normally keep scale numbers low. In the past, dormant sprays containing oil have kept scale numbers so low, most growers in our area have never seen damage from San Jose scale and may not even know what a scale looks like.

Based on my observations this past season, I am becoming increasingly concerned over a general build up of San Jose scale in some local orchards. I have seen more scale this year than I have ever seen before. At least three almond orchards I saw last season suffered significant limb death from high scale populations. Although we don't need to go back to the days of full dormant sprays, I caution growers and PCAs to keep an eye out for this potentially damaging pest.

The dormant period is an excellent time to look for scale. Inspect prunings or lower limbs for the presence of scale. Be on the lookout for twigs with dead, attached leaves. In the fall, scales are covered with a white waxy covering. The covering turns dark as the dormant season progresses. Look for a red halo around scale feeding on green, 1-year-old wood. Check your UC Almond IPM Manual for scale photos or refer to the UCIPM website at www.ipm.ucdavis.edu.

Moderate scale populations can be cleaned up adequately with a dormant spray containing six gallons of oil applied in at least 100 gallons of water per acre. An organophosphate insecticide can be included if populations are very high. Pyrethroids (Asana, Ambush, etc.) do not control scale. Two new products, Esteem (pyriproxifen) and Applaud (buprofezin) provide excellent scale control.