

March 14, 2014BEEKEEPER NEWSLETTER

2014 Almond Season

Pollination weather surpassed even last year's excellent weather, leading to record amounts of almond honey in hives (and overweight tickets for some trucks going home). A few beekeepers reported above normal dead bees in front of hives. Almost all growers apply fungicides after pollination was over but before bees were removed (its a constant, and usually losing battle for us to get growers to release bees when pollination is over – when there is no more almond pollen in the orchard). It is easy to blame fungicides for these late-season bee kills, but excessive numbers of dead bees near hive entrances can be due to two other factors: expelling of drones and larvae/pupae by bees in anticipation of starvation conditions as almonds go out of bloom. In one orchard, dead bees were due to DWV (Deformed Wing Virus).

If you truly believe you suffered pesticide damage in an almond orchard, consider filing a standard REPORT OF LOSS form with the ag office of the county in question (form sent on request, or can be obtained from the county).

If your bees aren't thriving, contact the Tech Transfer Team on one of their passes through your area.

The Free Ride Syndrome

Most almond growers consider fungicide sprays to be essential (Paramount Farming would disagree) and most now avoid day-time spraying when there is a lot of pollen in the orchard. Jacket-rot fungus can harm almonds after a post-bloom rain -- water collects in the receptacle formed by the "jacket" (flower remnants) surrounding the tiny developing nut where fungi can thrive). A few un-opened flower buds can often be seen in the tops of trees during these jacket-rot sprays, leading growers to hold onto their bees. Growers have less concern about potential bee damage when spraying for jacket rot and usually spray during the day and often add IGRs (Insect Growth Regulators) to the tank mix to give them a free ride. Most IGRs say *Non Toxic to Bees* on their label but it has been documented that some IGRs will harm bee larvae (*Nontoxic* applies only to adult bees). I've always considered fungicide sprays to be a minor problem for bees, but IGRs in the mix changes things. Some feel that new adjuvants and spreaders are causing bee problems – certainly more work is needed here. Many nutrient formulations are added to fungicide sprays as a "free ride" (application costs are the major cost for most sprays); nutrient sprays should present little problem for bees. Dave Mendes cites a case where the other Dave (Hackenberg) documented nine (9) different materials in a tank mix.

PNW 591

The above publication *How to Reduce Bee Poisoning from Pesticides* is an indispensable reference for today's beekeeper. The authors have done a masterful job of accumulating disparate information on many pesticides. PNW 591 is available on-line. A limited number of hard-copies were made for PNW (Pacific Northwest) and CA beekeeper groups that sponsored the publication. I'm trying to get more copies made as they're easier to access (at least for anyone over 40) than the on-line version. Every PCA and grower (of any crop) should have this publication.

Riding With Dave

Last week, I attended a PAm meeting in Modesto and PAm member Dave Mendes offered to be the driver from Bakersfield. This gave Dave the opportunity to give me his views on neonics – as you likely know, Dave believes them to be a real threat to bees – and allowed me to be exposed to the eastern U.S. view on the subject. Dave has abandoned his Florida citrus locations due to neonic applications for psyllids and feels that California beekeepers that are skeptical about neonic hazards will get a wake-up call when citrus growers here start water-running neonics during bloom. Neonics have been shown to weaken the immune systems of bees, making them vulnerable to the viruses that then do a number on the bees. Dave makes a convincing case for banning neonics and, because I am most influenced by the last person I talk with on a subject, Dave's views impressed me. I still share Malcolm Sanford's comment on neonics: *"I continue to sit on the fence on this topic – it is sooo complex"* – which reminds me of a Gilbert & Sullivan ditty that I've always liked (nice cadence) advising a young man on how to succeed in politics: *Endeavor to be clever and commit yourself forever to a firm stand on the fence* – a philosophy that I have tried to live by and one that has served me well over the years.

Clearing the Air

A few years back, one of our beekeepers used most of his almond check to upgrade his bee hives – replacing tattered, leaky boxes with brand new tight boxes. The following almond season, he went from bringing great bees to bringing weak, struggling colonies – from lousy looking boxes with great colonies to beautiful boxes with lousy colonies. When the pollen patties he fed during the winter turned moldy he got a clue: poor air circulation was damaging his bees, making them more susceptible to diseases. This makes sense when one considers that colds and viruses can spread rapidly when school children are confined to small classrooms. Bees naturally prefer and, if given a choice, will choose a domicile with good air circulation (a tree-hollow or an old house).

Here's Ben Franklin on fresh air (excerpted from an essay on the subject): *"Another means of preserving health is the having a constant supply of fresh air in your bedchamber....Confined air,*

when saturated with perspiable matter will not receive more, and that matter must remain in our bodies and occasion disease."

The beekeeper referenced above drilled upper entrance holes in his top box and his colonies are much improved. A 1947 book on hive ventilation was reprinted last year and is highly recommended: *The Ventilation of Bee-Hives* by E.B. Wedmore.

Other Book Recommendations

The Time it Never Rained by Elmer Kelton; *The Sixth Extinction* by Elizabeth Kolbert; *Yellow* by Frank Wu (the definitive book on racism in America; bad title, great book).

Research \$

As we do every year, we collect \$1/colony from both almond growers and beekeepers to help fund research on the many problems facing bees. We rented 34,626 colonies in 2013 and distributed the research money as follows: Project ApisM: \$45,000. Randy Oliver: \$10,000. Frank Eischen (USDA) \$15,000 (labor). This year we rented 36,822 colonies of bees. At current record prices for almonds (over \$3/lb) if Mr. and Mrs. Resnick (owners of Paramount Farms) donated 1 cent/lb, it would raise a million dollars for bee research.

COSTCO – The Good Guys

I used to have ambivalent feeling towards Costco, thinking it to be just a slight upgrade from Wal-Mart. Then Nema brought some Kirkland brand food products – dried fruit, et al. – that were surprisingly good. Kirkland honey (clover honey from the U.S. and Argentina) is excellent quality and is reasonably priced (\$13.99 for three 1# squeeze bears). Costco obviously employs good quality-control measures. What really sold me on Costco was their recent decision to raise the minimum wage for their employees (very un-Wal-Mart-like; many or most Wal-Mart employees are at the poverty level and require government assistance, leading some enlightened conservatives to support raising the minimum wage – the rising tide thing. Now Costco has teamed up with Project ApisM to provide funds for bee research: 2% of Kirkland honey sales will go to Pam. So encourage your friends to purchase Kirkland honey at Costco, and consider buying some yourself for location rent.

Save the Date

The 2nd annual Nut Festival will be held in Bakersfield on Saturday, June 7th. Last year's Festival exceeded everyone's expectations. Lots of food, games for kids, and good exhibits.

Mini-Museum

One of the more boring stretches on Hwy 99 is between Bakersfield and Tulare. Break it up with a pit stop at the Rest Stop about 5 miles south of Tulare (on either side of the Hiway). The State recently put up permanent display kiosks showing the history (much of it ag history) of the Central Valley. Well worth a stop.

Leave the Babies Home

I know that beekeeping is tougher now than ever but we're charging growers a premium price and they expect a premium product. Although our grower agreements say that our hives must average a minimum of 8 frames, our beekeeper agreements state that "colonies not meeting inspection standards [of 8 frames] will not be paid for". Every year, one or two beekeepers throw in a few 2 to 4 frame colonies, knowing that a 15-framer next to a 2-framer will make both average 8 frames. This year one of our beekeepers who for 10 years was consistently our top beekeeper slipped a few notches when we found some 1 and 2-framers and a couple of dead-outs. This beekeeper wasn't trying to hide anything – he told us ahead of time that the bees wouldn't be as good as they had been in past years; after taking into account his stellar history, we wound up docking him only 7 colonies on the 1500+ colonies he brought to us. His colonies still averaged well over 8 frames but its difficult to open a weak colony of bees in front of a grower and explain to him why the product he sees isn't the product he expected. I feel that the beekeepers we work with are above average and should deliver an above average product. Don't expect us to do your grading for you – cull out your dinks before you bring them to the orchards.

2015 Almond Pollination

You've heard about almond orchards being pulled due to our current drought. The most important irrigation for almonds is the post-harvest irrigation in September – this is when fruiting buds are developing for the coming year's crop. Virtually all almond orchards that received a post-harvest irrigation last year will not be pulled (if they are candidates for pulling) until the 2014 crop is harvested. Even if growers have to go on the open market to purchase water at exorbitant prices they will bring the 2014 crop home. In spite of what you may have heard, few, if any orchards were pulled this spring unless they were targeted for removal last fall. A significant acreage may be pulled after the 2014 harvest; some will be replanted in 2015 - the new trees will use less water for the first couple of years. The new acreage coming on line for bees in 2015 should balance the acreage being pulled. The bee supply may well be less in 2015 since beekeepers, expecting it to be easy to rent bees this year (due to the shortage last year) found out there were lots of bees vying for a limited number of almond growers. Seeing

an ample almond bee supply this year, some beekeepers won't be back in 2015. We plan to keep our prices the same in 2015 as they were this year. Your current agreement with us remains in effect for 2015 unless you cancel it by June 1st. We hope to work with you again in 2015.

Thanks

Your efforts at supplying strong bee colonies under current difficult conditions are noted and appreciated.

JOE TRAYNOR, Mgr., Scientific Ag Co.