July 23, 2013 - BEEKEEPER NEWSLETTER

2014 Almond Pollination

Grower signups are going well – we haven't lost any growers and hope to be renting the same number of colonies in 2014 as this year. The total 2014 bee supply for almonds will be greater than in 2013 due to better moisture conditions in the plains states and to better varroa control (the new Apivar strips are doing a good job). Don't look for a repeat of the 2013 bee shortage – an excess of almond bees is more likely. Beekeepers that are making lots of divides in anticipation of another bee shortage next year may wish they hadn't.

2013 Almond Crop

With this year's perfect pollination weather, another record almond crop was expected, but the current forecast is for a 1.85 billion lb crop on 810,000 acres, down 2% from the 2012 crop (on 780,000 acres). Per acre yields are down 6% from 2012. Weight of individual Nonpareil nuts is the lowest on record, possibly due to hot spells (Nonpareils comprise about 30% of statewide acreage). Almond prices remain firm, and there is hope they will increase. The record amounts of almond nectar collected by bees this year could have reduced carbohydrate inputs to developing nutlets, however the warm-sunny days that produced this nectar also caused post-bloom leaves to manufacture additional carbohydrates (via photosynthesis); leaving net carbohydrates unchanged?

Honey is Good for Bee Health Too

Honey contains p-coumaric acid, a compound that helps bees detoxify harmful compounds, including pesticides. May Berenbaum (U. of Illinois, entomologist) states: *"If I were a beekeeper, I would at least try to give them some honey year-round, because if you look at the evolutionary history of Apis mellifera, this species did not evolve with high fructose corn syrup".* (Western Farm Press, 6/15/13).

Lord Knows Best

When Canada closed the border to U.S. bees (20 years ago?) due to mite concerns, it was devastating to California queen and package-bee producers and put some out of business. Now that mites are established in Canada, Dr. Francine Lord of the Canadian Food Inspection Agency is reviewing whether to open the border to U.S. bees. If the border is re-opened, be extra nice to your queen suppliers and give them ample time to process your orders.

Does Half a Millimeter Make a Difference?

Steve Sheppard and Sue Cobey have been scouring the Caucasus mountains in the Republic of Georgia (between Russia and Turkey) in recent years hoping to find and introduce hardier, better bee genes into U.S. stock. From a report on Georgia's Caucasus bee in the July ABJ (p.684): "*The scientists were amazed by its ability to*

out-produce other bee types, even in non-native habitats, and by its long tongue or proboscis. At an average length of 7.1 millimeters, over half a millimeter longer than that of other honey bees, the Caucasus bee's proboscis can reach nectar that its competitors cannot."

Imidicloprid Being Phased Out?

Imidicloprid, a neonicotinoid, is sold under many different names and is currently the most widely used insecticide in the world. It has been banned in some countries due to its perceived hazard to bees. The manufacturer, Bayer, is introducing a replacement *Silvento* (flupyradifurone) that they claim is easier on bees, although it is also a systemic pesticide. Registration isn't expected until 2015 but watch for bee info on this new, improved material, keeping in mind that the devil you know may be better than the devil you don't know.

HLB – The Scourge of Citrus - and Beekeepers

HLB (Huanglongbing) is known as *Citrus Greening* disease and has devastated Florida citrus groves with a parallel negative impact on Florida beekeepers. HLB is a bacterium that is spread by the Asian psyllid insect (like mosquitoes spread malaria). Intensive psyllid treatment in Florida has severely affected Florida beekeepers. The Asian psyllid has been in California since 2008 (without the associated HLB bacteria) and our first HLB infection on citrus trees was found in March 2012 in Southern California. Initial HLB infections are difficult to detect, and HLB went unnoticed in Florida until it had spread to levels that are difficult to control since symptoms develop slowly. California has ample notice, and researchers are working overtime to get a handle on this disease that could kill our citrus industry and inflict major damage on beekeepers -- the only honey many CA beekeepers make each year is from CA citrus. The CA Citrus Research Board recently hired Ken Keck, former executive director of the FL Dept. of Citrus, and is gearing up for an all-out assault on HLB. Special attention is being given to genetic modification (GM) of citrus trees (to make them resistant) and to GM of both the psyllid (a suicide gene) and the HLB bacteria.

GMOs , The Ultimate Answer?

Genetically modified crops (and organisms) are controversial, but will have a major impact on growers and beekeepers for years to come. GM corn has already benefitted beekeepers by eliminating the need for multiple topical applications of pesticides. The Beeologics arm of Monsanto is using GM to fight (eliminate?) varroa mites. Fifty years from now, when a list is made of the top ten innovations to benefit mankind over the past 100 years, GMOs will be at or near the top of the list (unless they aren't).

Stock Tip

Purchase *Monsanto* for your kids/grandkids college fund. In 2014 Monsanto will be introducing insect resistant *Inacta Soybeans* in Brazil and *RR2 Xtend* in the U.S.

Learning the Lingo

Every discipline has its own language – words and phrases that serve to elevate members above the masses (e.g., *habeas corpus*). Bee science is no different. After borrowing from a recent bee study (*RNAi Based Insecticidal Crops)* I plan to hold forth at upcoming bee meetings. I will say *"By reducing translation of vacuolar H+-ATPase subunit A in the pest, the plant increased pest mortality and larval stunting."* Those nearby will nod their heads sagely; I will then saunter over to another group for a repeat performance. (Forewarned is forearmed).

By the Numbers

$ the U.S. has spent on corruption in Afghanistan: *around $2 billion*; in Iraq: *around $2 billion*. $ shortfall for research studies that Project ApisM wants to fund: *$200,000*. Amount the USDA is giving farmers (mostly corporate farms) via subsidies in the current Farm Bill: *Several billion $.* Amount the USDA is charging Reed Johnson to run chemical analysis of samples for his important bee-pesticide study: *$87,600*.

More numbers (from August, 2013 *Harpers Index*): Net amount contributed to Medicare by immigrants between 2002 and 2009: *$115 billion*. Net amount drawn out by native-born citizens over the same period: *$28 billion*.

Sign Him Up!

You can run bees as efficiently as possible, but if you don't rent them at a good price, you don't make money. Here's a spokesperson for the pistachio industry (he's done a super job getting higher prices for pistachios) expressing similar sentiments in the April 2013 *Pacific Nut Producer* magazine: "*You can farm as efficiently as you can, but if the product is not sold at a good price, you don't make money, regardless of how efficient you are."* (*Stewart Resnick*). This Resnick fellow appears to be a real go-getter. Maybe the bee industry should sign him up to promote better prices for almond pollination (and honey).

Almond Pollination – Looking Ahead

There were large plantings of almonds this year and there will be more next year. These plantings won't use bees until their 3rd year in the ground, and then only at ½ colony/acre, increasing to 1.5 or 2/acre by their 5th year. With bee numbers remaining static and with the bee problems this past winter, growers are concerned about the future bee supply. There is no cause for such concern *IF* growers using 2 or more colonies/acre cut back to 1.5 or 1/acre as many of our growers have done. A reduction of ½ colony per acre on 800,000 acres would release an additional 400,000 colonies for almonds in the coming years and insure growers of a stable bee supply. Cutting back on colonies/acre only works if growers use strong colonies, as our growers do (with your bees). Sure, providing strong colonies for almonds requires additional beekeeper inputs, esp. feeding costs, but these costs can be recouped with higher bee-rental fees. Most of our growers have bought into this and have reduced their per-acre pollination costs by reducing colonies/acre and paying a premium price for strong colonies. Frank Eischen has shown, at least on the grower we work with, that you set more nuts at 2 vs. 1 col./acre but that the final yields are no different (the extra nuts set don't make it to harvest – the trees can't hold them). One of our growers cut back to ½ colony/acre this year and his crop looks great.

Look for almond plantings to slow down after 2014 – we're running out of good almond ground, and other crops -- walnuts, pistachios, grapes -- look better to growers than almonds, esp. since there is no pollination fee for these crops

Product Quality Determines the Price

When I told Bill Fletcher recently that our growers were signing up for 2014 at a faster pace than expected, he told me it was due to my sparkling personality. Bill had me going for a few seconds but, as anyone in ag knows, you can't get a premium price for any product until you have proven you can deliver a quality product. We've proven this over the years due to the extra efforts of our beekeepers (you) in providing premium strength bee colonies.

Bill and Neil (and others)

Bill Mathewson and Neil Trent, are the face of our company during almond bloom. Jeff Jones and others help out on occasion. As you know, I confine myself to the office until your bees have been placed, manning the phones, putting out fires (and occasionally starting them). Bill handles Kern County and southern Tulare County, Neil covers Tulare County to Stanislaus County. Both have done an outstanding job representing our company, and, just as important, representing your bees – we couldn't function without them. Both Bill and Neil are retired beekeepers with an excellent knowledge of bees. Both have established an easy rapport with our growers over the years – better than mine in some cases. We've never had a beekeeper complain about how Bill or Neil grades bees once the beekeeper has met with them to look at the bees.

Still Crazy After All These Years?

A number of outside beekeepers have told our beekeepers they are "crazy" to rent bees through Traynor -- that our grading is way, way too tough -- that you'd be much better off renting bees elsewhere, without the extra expense of culling out sub-par colonies and boosting up all colonies. Growth of our company is limited by the number of beekeepers that want to work with us – most don't. We have no desire to be the biggest bee broker, just the best. We appreciate our crazy beekeepers that have allowed us to establish a reputation for delivering a quality product.

Go all out for 2014 almond bloom

With the expected rebound in 2014 bee colony numbers we will be under pressure to continue to deliver a quality product. To separate ourselves (your bees) from the pack, we are guaranteeing 8+ frames of bees at the ***start*** of bloom. Other growers accept colony-strength inspections at the end of bloom. I anticipate price cutting by other beekeepers as the months go by. Help us, and yourself, to maintain current prices, by continuing to deliver a quality product. I realize no beekeeper can tell now what his colonies will look like in February; if problems cause your numbers to drop, let us know right away.

Best wishes for a bountiful honey harvest (if you’re fortunate to have one). And treat for mites no later than August (some beekeepers now start in July).

Call anytime for an update on this end.

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