May 8, 2013 – Almond Grower Newsletter

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2014 Almond Pollination

We are making a $16/colony price increase for 2014 for our 8-frame or better bees at the *start* of bloom. For 8-frame bees at the end of bloom (6 frames at the start) our price drops by $32.

What Happened to the Bees This Spring?

This was a tough year to get strong bee colonies for almonds for a number of reasons. To answer the above question above, read the aptly titled *What Happened to the Bees This Spring* posted on Randy Oliver's website www.scientificbeekeeping.com posted on April 18. See also Dan Cumming's *Bee Status* report posted at www.projectapism.org A combination of factors ---cold weather, malnutrition caused by drought, lack of good bee forage, inadequate control of varroa mites and the nosema fungus – caused big problems for beekeepers, making it a real challenge to supply strong almond colonies. In order to fulfill our colony commitments, we cut back numbers on some growers and scrambled for bees from new suppliers.

What's Going to Happen to the Bees Next Spring?

Things couldn't be much worse than this year, but one never knows. All beekeepers are trying to build up their numbers, but must sacrifice honey production in order to do so and even then, it will be difficult to build back up to where they were pre-crash. California bees will be under stress again due to continuing drought conditions. The Midwest looks better than it did last year at this time, but we won't know until later if there will be ample bee forage.

CRP morphs into CRAP for bees

Huge numbers of almond colonies destined for almond orchards spend the summer in Midwestern states, esp. the Dakotas, Kansas and Minnesota. When there were farm surpluses years ago the government started a Conservation Reserve Program (CRP) paying farmers to return farmland to native prairie on 5, 10 and 15 year agreements to do so. Bees do great on natural clover on prairies but with current high commodity prices and with ethanol subsidies, this bee pasture is being converted to corn and soybeans, both lousy bee plants. Bee health is declining as CRP agreements expire -- corn plantings will exceed 97 million acres this year. For more on CRP-bees, visit www.projectapism.org, click on *News* then on the Sept-Oct. 2011 *The Bee Box.* If you have land to spare and are interested in planting bee forage check out how to get seeds at the ApisM site; or consider planting cash crops that bees like, such as canola and safflower (but don't plant RR canola or

you'll create a future weed problem). Plants that bloom in September-October are ideal for bees as there is a dearth of pollen during these months.

Pre-bloom vs. Post-bloom Bee Colony Strength

Bee colonies can increase by 2 to 4 frames in strength from first-bloom to petal fall. Our colony inspections are done pre-bloom, as soon as the bees hit the ground. Three large Kern County almond growers rent over 150,000 colonies among them and many of these colonies aren't inspected until well into bloom or at petal fall. Some of our beekeepers have let us know that our pre-bloom inspections are much tougher than those by these 3 large growers. We graded one beekeeper at 10 frames; identical colonies that he took to one of the large growers graded out at 16 frames at petal fall. If a beekeeper renting 1,000 colonies to a grower can talk a grower into delaying colony inspections until petal fall, he could make an additional $10,000 – such talk is not cheap for the grower. We are known among beekeepers as being tough, but fair, on inspections. Beekeepers have told us that other growers are far more lenient on inspections. Even though we pay (and charge) top prices, we still have more trouble getting beekeepers to contract with us than getting growers to pay a premium price for premium bees.

Optimum Colonies/Acre – Still Unknown

With bearing almond acreage currently at 810,000 and expected to increase to 870,000 in a few years and with U.S. bee colony numbers remaining static or declining, a future shortage of almond bees is possible. If every almond grower reduced colony stocking rates from the current average of 2 colonies/acre to 1.5 colonies/acre there would be no bee shortage. The USDA's Frank Eischen has been comparing 2 colony/acre vs. 1/acre on one of our growers for several years. Dr. Eischen has found a significantly higher *initial* set at 2/acre but no significant difference in yields at harvest time – the trees simply don't hold on to all the nuts that are set at either stocking rate, dropping many pollinated nuts from each plot.

This year one of our Kern County growers, against my recommendation, cut back from ¾ colony/acre to ½ colony/acre on 650 acres of hardshell/softshell varieties. His current crop looks great. An 80 acre Tulare County grower called me a few days before bloom desperate to get bees because his beekeeper pulled out of the orchard after being told his bees were going to be inspected for strength. We couldn't help him so he went without bees and his crop looks very good – 700 of our bee colonies were located within a mile of his orchard and undoubtedly set his crop. If interested, you can see this zero-colony orchard: ¼ to ½ mile N. of Ave. 24, on the east side of Rd. 144, extending ½ mile to the east (N ½ of SW ¼ of sec. 14, T.24S, R.25E). The above orchards help answer the question *How low can you go?* in regards to colonies/acre. If the 1 col./acre USDA test plots continue to show no yield difference from 2/acre (which appears to be the case again this year) more

growers will feel comfortable in reducing colony numbers by ½ colony per acre and the specter of a bee shortage will be put to rest.

Independence Looks Good – but NIMBY?

The Independence variety has rightfully created much interest – large kernel, similar to Nonpareil and a 1-variety orchard makes management much, much easier. Bees will still be needed but at much lower stocking rates – maybe ½ colony/acre – since the pollen only has to be moved from the flower anthers to the stigma to set a nut, not from one variety row to another. Say you decide to plant 80 acres of Independence next to your 80 acre planting of standard varieties. You have 160 colonies of bees contracted for your standard planting (2 cols/acre) and decide to go with no bees on the Independence block. You then wind up with 160 colonies on 160 acres, or 1 col./acre for both 80 acre blocks. Maybe you should have put more bees on your standard planting. Or, say your neighbor plants 160 acres of Independence adjacent to your 160 acre standard planting and doesn't put any bees out (or puts only a token amount of near-empty bee boxes in an attempt to be a good neighbor). What should you do?

Now, project ahead 20 years and imagine a million acres of almonds in California, half of which are Independence trees checker-boarded throughout almond country. Say that UC recommends placing no bees on Independence plantings that are within a mile of standard plantings. Bees will do great in such a scenario because of a significantly higher flower/bee ratio but if you're "stuck" with a standard planting should you up your bee numbers to account for the dilution of your worker-bee force?

Neonicotinoid Insecticides

Neonicotinoid insecticides have been in the news lately, having been banned in some countries due to concerns that they are responsible for current bee problems. The U.S. beekeeping community is badly split on this issue, with many respected beekeepers pushing for a U.S ban on neonics, while many others say wait a minute. John Miller, president of the California Beekeepers Assn runs thousand of colonies in California and N. Dakota and poses a thoughtful question: *if you ban neonics, what will replace them?* Farmers must control harmful insects, and any replacement for neonics could well be more harmful to bees.

New Bee Film Hits the Mark

There have been a number of films, TV programs and news stories in recent years with a general theme: *What's happening to the bees?* Until now, almost all of these films, etc. wind up blaming an easy target: pesticides. A new film, *More Than Honey,* will be released later this year and provides a more nuanced view. I saw it at the Fresno Film Festival last month and it is easily the best bee film out there. It doesn't give pesticides a free pass but

gives thorough coverage of all the problems facing bees. The film visits John Miller (above) in almond orchards where he provides a battlefield account of current problems. John is also the protagonist of the best-selling book *The Beekeeper's Lament* by Hannah Nordhaus, an entertaining and informative read.

Poor Info Gives Poor Policy

Fuzzy-thinking liberals have recently been taken in by pseudo-science on a couple of fronts. Several years ago immunization shots (and the mercury in them) were felt to be causing a spike in autism in children, causing many liberal moms to refuse shots for their kids – a dubious move that increased the incidence of whooping cough in liberal enclaves. Turns out that increased cases of autism are due to more accurate reporting and to the fact that men are having babies at an older age than a generation ago – a direct link between sperm from older fathers and autism in their offspring has been shown. The current crusade against GMOs is being led by ill-informed liberals, including Barbara Boxer and her Democratic colleagues who are pushing for a national GM labeling law on all food products, a proposal that was recently defeated in California after the electorate got all the facts.

On the other side of the ledger, fuzzy-thinking conservatives are swallowing propaganda put forth by oil companies that current global warming is a natural phenomenon that requires no attention. This, in spite of the fact that an overwhelming majority of climate scientists believe that man-made global warming is a significant threat. Unfortunately, climate-change deniers make more noise in proportion to their numbers, giving the Impression that it is an evenly divided debate when it is not. Rush Limbaugh ("*Global Warming is a worldwide hoax")* would have you think that you and he represent the Silent Majority on the issue – *No*, Rush, you're the vocal minority. And don't depend on Fox News for reliable information on climate change; a recent *Union of Concerned Scientists* analysis found that 93% of the references to climate science on Fox News were at best misleading, and often just plain wrong. Even considering that the *Union* might be biased (and they probably are) cut that 93% in half and you should still be skeptical of Fox News pronouncements on global warming.

Big Picture Stuff

Can we feed the expected 2 billion increase in world population coming in 40 years? CAST Issue Paper 51 *Food, Fuel and Plant Nutrient Use in the Future* at www.cast-science.org/publications gives answers. Also, check out *Global Food Systems Forum Webcast* held last month; an all day meeting sponsored by UC.

Sounds Good ….. Until

Here's a neat proposal that everyone should agree on: *Let Medicare negotiate with drug companies on prices.* Sounds like a great idea, until you find out it's the Al Franken Medicare Petition; yes, the same Al Franken that wrote the best-selling book *Rush Limbaugh is a Big Fat Liar.* No action will be taken on this no matter who sponsors it. Big Pharma lobbyists, like oil lobbyists, outnumber congress by a huge margin and won't let such a bill see the light of day, just as oil and coal lobbyists will prevent meaningful climate-change or fracking regulations. $ from lobbyists run our country.

Republican Peace Offering to Democrats

It appears that Republicans really want to establish a bi-partisan, cordial relationship with Democrats. For an upcoming Democratic fund-raising raffle, the Republican party donated a two-day, all expenses paid hunting trip with Dick Cheney.

We're working on 2014 Almond Bees Now

Plans for 2014 almond pollination by both beekeepers and ourselves, started right after the last bees left almond orchards in March. Beekeepers must plan summer-fall feeding programs and pest treatments now. Please let us know your 2014 bee needs at your earliest convenience so that our beekeepers can take the necessary steps to provide you with the strongest possible colonies next February.

Thanks

Your business is appreciated and never taken for granted.