

# Nutrition & Mite Control

60#s Of Feed/Colony, And Good Mite Control With Formic . . . Healthy Colonies

Wendy Mather

An 8% loss on 2988 colonies coming through the Winter of 2012 in an Idaho potato barn is a darn good ratio, when losses of up to 50 and 70% have been reported. So what does this second generation beekeeper from Halliday, North Dakota do to bring his bees through the winter with such a low winter mortality rate? Brent Woodworth, with humility and humor, generously shares his management practices which successfully support him and his crew in raising and maintaining healthy bee colonies.

Nutrition, nutrition, nutrition! Apart from his labor costs, feed is Woodworth's second biggest expense. Brent and his crew feed each colony approximately 60 pounds of feed each year! As a migratory beekeeper, it's a must. "You reap what you sow," says Brent, "and if you're expecting an eight-frame average cluster by February 12<sup>th</sup> for almond pollination, you've got to feed!"

After three months inside the Winter refuge in southern Idaho, the bees are carefully loaded and trucked to a staging area in the San Joaquin Valley where they finally get to take their cleansing flight. The crew works tirelessly for the next couple of weeks to grade, feed and place the colonies in their respective orchards. Consistent, healthy nutrition and proactive mite control are Brent's equation to maintaining healthy bees. He believes it's best to do a cursory check and pop lids to get an idea what the load looks like the day after the bees arrive in California. That first day is mayhem for the bees after being locked up in the calm darkness of their Winter building!

The following day, Brent and his crew feed Pro-Sweet Liquid Feed to any light weight colonies, and he and his crew begin grading the strength of the hives and giving each colony a pollen substitute patty. He believes this step is crucial in minimizing the stress on already stressed bees. It's at this point when dead outs from the long haul to California are culled. This year he only lost 6% on the trek to the almonds, so his total Winter losses for 2012 are 14%.

As the crew works diligently at cracking open each hive to assess cluster size and feed a pollen patty, they look to see if the bees have taken the syrup. If the syrup is still on, that's a clue that something is wrong in the hive. It could be anything from a queen problem to a missed mite treatment from the previous Fall; anything is possible when you run a lot of colonies. If some hives are below grade, a number is recorded on the lid with a grease pencil indicating the amount of frames a colony needs to bring it back up to the eight-frame average. Weaker colonies are enhanced with bulk bees from colonies marked as having more than the eight-frame minimum. Brent uses a few sheets of paper towel between the boxes to help the bees transition to their new home. When all of the bees are fed and graded they are carefully placed in the orchards.

Brent believes if we're asking the bees to start work earlier than what is natural, he must give them a boost

and push them into production by feeding lots of carbohydrates. Some of his strongest hives take two rounds of feed before being placed in the almonds. After petal fall in late March, all of the colonies are fed again. As it is also brood splitting time, nucs are established with two frames of brood and a mated queen. The nucs are fed right after the splits are made, and again before they leave to return to North Dakota. Brent feeds his bees between four and five times in California before bringing them back in early May to Summer in North Dakota.

Mite treatment begins in the almonds too. After petal fall and feeding, Brent feels a mite treatment is extremely important. This spring, he is committing to try the MAQS formic acid single strip, otherwise known as the "Knockdown" treatment. It has a 70% efficacy if used per the label directions; an effective way to knockback the mite load until he's ready for his double strip MAQS "Knockout" treatment in early May. With very low mite numbers in early Spring in California, Brent feels that a single MAQS treatment strip will keep the mites under control for two months.

The moment Brent's bees are safely returned to their Summer foraging home in Halliday, North Dakota, they are fed again. Approximately one week later, the crew works all of the yards, cracking open the story and a half hive boxes, carefully placing two MAQS formic acid treatment strips across the top bars of the bottom brood box so that each top bar comes into contact with one of the strips. He follows the label directions precisely.

After the honey flow ends, it's feeding time again! The colonies are prophylactically treated with Fumigillan at this time of year. Once the feeding is done, it's time for the final double strip MAQS "Knockout" treatment which has an efficacy of 90% and kills mites under the cap, when used per label directions. The colonies are then



Staging area in the San Joaquin Valley.



Photo taken February 13, 2013. Hive treated with two MAQS Formic Acid Treatment strips in the Fall of 2012. "Knockout mites."

rounded up and wrangled safely back into that potato barn in Idaho where they spend a quiet cozy couple of months before they are expected back to work in California in early February to help pollinate the 760,000 acres of almonds.

For Brent Woodworth, Nutrition+Mite Control=Healthy Bees. It is an easy equation comprising timely, consistent and healthy feeding, as well as proactive *Varroa* management. Brent humbly admits the challenges



Brent Woodworth happy to grade a healthy hive: Nutrition+MAQS=Healthy Bees.

embedded in the equation for him at this point are mostly physical, but he's got a strong younger crew he's mentoring to ensure healthy bees for almond pollination and honey production, and to secure the future of beekeeping for the next generation. **BC**

Wendy Mather is the resource person for Mite Away Quick Strips (MAQS™) for the southwestern U.S. She has also been a beekeeper since 2007.



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**Drone Comb  
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