

FROM US TO YOU

COMMENT

Kim Flottum

WINTER relaxes its grip here most years only with reluctance. Its hard fought compromise with summer is spring – a time of forgiveness for meteorological sins past, and hope for kinder, gentler days to come.

Often it's hard to tell if winter has indeed let go as cold and snow and wind plague spring as much as winter. Too often winter's grip refuses to relax, and not nearly enough does it step aside with even a tease of summer warmth.

When it comes to all the kerfuffle about global warming, I read the papers, watch the movies, keep tuned to the web...and plainly see the results of our aberrant behavior. Still, a hesitant week in what's supposed to be spring tends to cast a doubtful shadow on all those warming predictions.

Beekeepers, like all farmers everywhere, live for the promise that next year will be better – better prices for the goods we need, better weather, better tools to solve the problems we encounter, and certainly better prices for the crops we raise. Yes, next year will be better. We have to believe that, we have to.

But for the past several years next year hasn't been better. It fact, next year seemed to be far, far worse. And no matter what beekeepers did, when they did what they were supposed to do, what they had always done, what everyone said to do, their honey bees still died. It was a mystery, an unknown. A plague of uncertainty ruled.

But it seems, perhaps, this spring has been different, at least for some beekeepers – those who have finally realized that the old rules no longer apply, that 'business as usual' isn't part of the program, and that just hoping for a better year probably won't bring a better year.

This spring, smart beekeepers are being proactive when it comes to ensuring the health of their charges. The spectre of Colony Collapse Disorder has scared even the most traditional among us. This is an incredibly positive change in how we approach our management practices. Last year, and for several past years, drought was a part of most

of what we did, and that drought caused all manner of problems for our bees – it stunted the plants they visit so those plants simply produced less than normal – not only less, but what they did produce seemed to be reduced somehow, diminished in quality along with quantity. So even what the bees could harvest was less than they needed. And most beekeepers didn't feed to help.

Those insidious varroa mites have been here too, weakening both young and the adults, and passing along those viruses they share. Their damage is generational, for they feed on the young, who in turn grow to be less than normal and then can't care for the young that they are charged with. One tiny, tiny mite harms grandmothers, mothers and daughters, with just a single bite.

That newly identified, but not-so-new disease called *Nosema ceranae*, too, reared it ugly head and unprotected colonies fell like autumn leaves late in the year, not in the spring. *Ceranae* uses a different calendar and different rules – it's faster and deadlier than its familiar and more benign cousin of the *apis* clan. For several years we were uninformed and unprepared.

And the final straw, the one that broke all our backs is the toxic soup our bees must live in every day, must raise their babies in every day, must endure for a whole, but shortened lifetime. We expose our bees to pesticides even inside their homes, that sacred place where everyone should be safe. We do this to kill and control the pests that live there too. Those pests that kill and cripple our bees. Home is not safe in so many ways for a honey bee.

And even when they fly away, fly to food and water they find yet more of the chemicals that we use to kill and control those pests that harm our crops. Our bees are in the worst of both worlds and they are dying. No farmer kills his animals slowly, on purpose. No farmer intentionally sends his stock to the killing fields, never to return. No one but beekeepers do this.

But last fall, last winter, and now this spring, as harsh and unforgiving as it always is, it seems we awoke from this nightmare of beekeeping gone awry. This spring we changed the rules.

First, we started to look at what our bees were eating, at what they had to eat. Drought and millions of acres of monoculture have so limited the diets our bees need that they are slowly starving to death. There are no fat bees in our hives. Imagine if you will a diet for your whole life of hamburger and celery. How soon before you, too, are dead?

So now when our bees find only empty calories, or only a monodiet of plenty, we've sworn off feeding corn syrup and replaced it with, yes, honey when we can or at least pure sugar when we can't. When bees don't find enough to eat good stewards make sure they do, with better, newer honey bee protein diets, and full ratio carbohydrate foods – but now, it's good-for-bees food rather than the least expensive, bottom of the barrel food we can find. More importantly, maybe most importantly, the notion of 'let them find it themselves' is finally going away. Our honey bees are more like our cattle and chickens now. Less like wild bees anymore.

And slowly, too slowly but better than not, we're cleansing the inner sanctum. Home should be safe. Home should be clean. Home should be the best place there is. So now we are replacing the chemical scared comb inside, and changing what we use to keep that home safe for our bees, but deadly for their enemies. We are bringing in bees that laugh at the sight of mites, that gargle *Nosema* for breakfast, and are industrious beyond measure when it comes to keeping their home as clean as they want it...this hygienic behavior is becoming standard operating behavior when it comes to bees. That keeps the chemicals beekeepers use at bay, and keeps their home safe.

In this bright spring we can control the *Nosema* diseases safely and sanely, we can feed when we need the best foods there are at just the right time. We can, if we choose, manage varroa and small hive beetles too, so our bees are safe and their homes are secure.

But it is what we can't do, what we don't have control over, what no honey bee knows how to avoid...that is still killing our bees. Even though the smartest beekeeper has seen the light and cleaned up the mess at home, his honey bees still roam, still go to those plants, still bring home those chemicals, still feed their young that toxic, poisonous sludge

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that is still abundant, still everywhere in the outside world.

The chemicals our honey bees find and bring home, legally used chemicals are killing our bees every day, every year. A single example....fungicides. The companies that build these chemicals molecule by molecule are the judge and jury on whether they get used in the real world. They do the tests, they make the decisions on if they are good, and they tell the farmers, the regulators, the suits what is. For a fungicide...consider. A fungicide, let's be clear...a fungicide is a chemical that kills a fungus or keeps it from reproducing... can be sprayed on blooming plants, directly on the flowers, into the nectar, on the pollen...why? Because the chemical companies say that when bees land on these flowers, the now-dry fungicide causes no long

term harm to that honey bee. Case closed. Enough said.

But wait. Those bees take that fungicide home, tiny amounts of it on their bodies, but more and more of it in the pollen they bring home too. And more bees bring more of it home, on the pollen, in the nectar. And then what...then what becomes of this fungus killing chemical? It is stored away, concentrated in the cells and waits to be fed to...who? Why, the babies in the colony, that's who. Would you feed a chemical that is meant to kill other living things to your children? Would you?

And this is just one of hundreds of chemicals our bees encounter that are legal to use, legal to spray, legal to take home and feed to their children. It is insane. And it happens every day.

This spring our bees are better for what we have done. We finally changed the rules and for those beekeepers who saw the change and now manage better, their bees are healthier, better, happier.

But no matter what beekeepers do, how much they change, how careful they are, how hard they work, how long they toil...that mythical next year will never be completely better until all the rest of the world awakens to the chemical dirge playing just outside their window.

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