

Fourth Down, No Yardage Gained

All summer, we patiently waited. Perhaps you've been waiting too. We've heard all the rumors, and we watched everyone from the *Wall Street Journal* to the *Lancaster Farming Journal* print quotes from researchers coyly hinting about having found "the cause of Colony Collapse Disorder (CCD)" and the paper they were about to publish in the prestigious journal, *Science*.

We've been restrained – we did not want to jeopardize the paper's chances of being published, nor did we want to embarrass the authors. We are beekeepers, so we want quality work, and are willing to wait for it. Many of us engage as beekeeping as our livelihoods, so we are a deadly serious about CCD. So, beekeepers kept mum, and *Bee Culture* magazine printed only what had appeared elsewhere, not wanting to be the source of "leaks".

A fat lot of good that did us. The paper may turn out to be a much bigger embarrassment than anything that might have resulted from our actions. While the paper contains much that is new and compelling, what is compelling is not new, and what is new is not compelling.

The subject of all the hush-hush and anticipation turns out not to be an announcement of the "cause of CCD", but a tentative statement merely confirming the preliminary results announced back in April by representatives of the Army, BVS Inc, the University of Montana, and UC-San Francisco. The paper makes very similar observations that there is an apparent correlation between a specific set of bee pathogens and CCD. It also suggests that these pathogens can be linked to imported bees from Australia.

But the authors consistently failed to supply convincing evidence to support the claims they made.

Despite the serious defects in methodology, the assumptions made without sufficient basis, and the presentation of speculation as if it were fact, there is significant value among the defects. It is the first complete report on what pathogens have been found in all those samples contributed by so many beekeepers.

In short, the disease data is useful, even though it may not be as accurate or as relevant as we might have wanted.

But fall is here again. Fall was when CCD hit beekeepers hard last year. The paper offers no help at all to beekeepers. The researchers still don't have a clue about what to do to avoid CCD or how react to CCD. I'll say it yet again: "All we can do is watch hives die". How many times can beekeepers attempt to rebuild operations devastated by CCD before they go broke? How many beekeepers can suffer this kind of devastation before growers can't get pollination for their

crops at any price? We might see the answers to both questions this fall. We'd rather not find out, thank you very much.

So, in terms of tangible results, the ball has not been moved a single yard from where it was in April. In summary, what we have is:

APRIL	SEPTEMBER
Nosema ceranae found all over	Nosema ceranae found all over
Of course Nosema apis is still around	Nosema apis found all over
A new Iflavirus found in CCD colonies	The virus is "Dicistroviridae", not "Iflavirus"
Deformed Wing Virus Found	Deformed Wing Virus Found
Sacbrood Virus Found	Sacbrood Virus Found
Kashmir Bee Virus Found	Kashmir Bee Virus Found
We found lots of other pathogens, too	So did we.
Findings shared openly	Findings not shared until published in "Science"

So, maybe it is more accurate to say that it is fourth down, and we have lost yardage. We certainly have used up all our time outs. While the mainstream press is cheering the play, we beekeepers are much less enthusiastic.

This report is broken down into sections:

- [Practical Implications for Beekeepers](#)
- [World Trade, Realpolitik, and Beekeeping](#)
- [A Beekeeper Reads the Paper](#)
- [What Happens AFTER What Comes Next](#)

Check back periodically, I'm typing as fast as I can, and each section will appear just as soon as it can be spell-checked and formatted for the interwebnet.