## Banana Bunchy Top Virus (BBTV) re: any protocols that may be helpful in BBTV management...?

## Question Recently Asked by a Farmer in Hawaii:

What do you recommend for Bunchy top on Banana Trees?

## Answered by Erik T. Morgan, Founder of Organic Approach, LLC:

Several rapid thoughts come to mind in regards to Bunchy Top on Bananas and these thoughts basically only serve to initiate a larger conversation:

- 1.) There isn't one solution that will work; the only thing that will give you the best results, albeit without perfection, is a multi-pronged approach.
- It of course will help to know if you are certified organic or a conventional grower; if organic, then conventional systemic herbicides (for killing diseased plants) & insecticides (for killing the aphids) will be out of the question.
- 3.) Removing the virally diseased plants will be part of the effort, protecting the plants with a truly qualified repellency product could be an important prevention tactic for new/young trees, using humic & fulvic spray preparations should also help to slow viral spread, getting rid of the dead leaves hanging on the trees will help minimize the ant colonies tending the aphids, choosing new varieties certified as free of the disease will help reduce the overall impact on your trees, creating tree variety diversity in your plantation will also make it more difficult for the disease to spread freely without obstacle, etc., etc.
- 4.) I do not want to state that there is an organic solution that will make all of your worries go away, because I know of no solutions as such. However, BBTV (Banana Bunchy Top Virus) is one of those tough scenarios that will require a multi-pronged attack.
- 5.) Finally, I do know from my own experiences treating trees for the last30+ years, that soil injecting trees regularly does help to improve a

tree's overall immune resistance and to slow viral progress; hence, this soil injecting approach would serve as only 1 of the multi-pronged tactics, in my humble opinion.

- 6.) If I could be so bold for 1 moment as to say the following statement: If these were my trees, and I had all of your tactical knowledge of things you already do to slow the spread of BBTV, I would do all you know, and I would definitely do soil injections for the following reasons:
  - a. I would want to do my best to make sure the banana trees were emitting as healthy an energetic frequency as possible, so the aphids simply would not be as attracted to my trees.
  - b. I would reduce the use of systemic or broad spectrum pesticides whenever possible, mostly in an effort to not kill off my beneficials; I have found that beneficials can do a great part of the job reducing aphis populations.
  - c. I would get to know all-season spray oils, and other bio-rational products, not as a replacement to the pesticides you know to work for you, but as an added tactic; spray oils can work great on aphids (when drenching very thoroughly) and oils and other bio-rationals tend to be soft on the beneficial that are helping us to keep aphid populations down to begin with.
  - d. I would definitely use a kaolin clay crop protectant, on a regular basis with regard to BBTV, to deter aphids in the first place (we are a large seller of kaolin clay). This would serve as an integral part of my multi-pronged attack plan, but it would NOT be the only thing I would be counting on to save me from BBTV.

Any further questions or clarifications, call us at 717-299-2112.