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Trial Report: Sweet Corn – Woodley Farms, Sabinal, Texas Reported by Mr. Dave Shimp and Mr. Clyde Veltmann



Woodley Farms in Sabinal, Texas is owned by Jack's Produce of Hondo, Texas. Jack's Produce is very large grower of sweet corn for sale to one of the largest food chain stores in the USA and also of winter wheat for export. The trial was supervised by Mr. Mike McHugh, agronomist for Jack's Produce.

Trial Summary

Despite later than ideal application of **MicroSoil**[®], the sweet corn treated with **MicroSoil**[®] matured faster, had higher yields and produced more nutritious, better tasting crops than the control area.

- The trial took place in a field on the same pivot that was planted in two stages. The control area was planted on June 1, 2015 and the **MicroSoil**[®] trial area was planted on June 14.
- The **MicroSoil**[®] was not applied until June 24, ten days after the trial area was planted. Ideally it would have been applied at the same time as the original planting or even better on a pre-plant basis, but logistics problems prevented this.
- Notwithstanding later planting and later than ideal **MicroSoil**[®] application, by August 7, the trial area was more mature by every measure than the control area planted two weeks earlier. Both ears were mature in the trial area, while only one ear was mature in the control area.
- Urgent customer demand prompted the machine harvesting of the entire area on August 14, 2015. In an ideal world the harvest of the control area would have been deferred for at least 10 more days to allow better maturity, but customer demand prevailed.
 - The control area took 28 rows to fill a trailer and in most cases the second ear was rejected as too small.
 - The 64 rows of the **MicroSoil**[®] trial area filled 5 trailers, 13 rows per trailer with the second ears being largely acceptable.
- The harvest data and the planting dates suggest the **MicroSoil**[®] trial area matured in about 61 days compared to an estimated 85 days required for the control area to mature, assuming 10 more days were adequate.
- The root development of the **MicroSoil**[®] treated corn as assessed on the same day as the harvest was significantly better.
- The BRIX for the **MicroSoil**[®] treated corn was 14% higher, 16.8 compared to 14.8 for the control, which is a sign of a more nutritious crop. Blind taste tests indicated that the **MicroSoil**[®] corn tasted better.

Trial Details

- The trial was in a very large sweetcorn field in Sabinal, Texas owned by Jacks' Produce of Hondo, Texas.
- The entire field, with the exception of the MicroSoil® trial area (a 68-row section in the middle of the field) was planted on June 1, 2015.
- The 68-row MicroSoil® trial area was planted on June 14.



This photo (left) was taken on June 24.

- The area on the right hand side of the photo was chosen for the control area and had been planted on June 1, 2015.
- The area on the left hand side of the photo was chosen for the **MicroSoil®** trial area and had been planted on June 14, 2015, two weeks later.

This photo (right) taken closer up on the same day, June 24, shows the relative maturity of the control crop on the right and the MicroSoil® trial area on the left.





The **MicroSoil**[®] was applied on June 24 using a mechanized sprayer (photo above). Ideally it would have been applied at the same time as the original planting through the pivot or by the pop-up planter, or even better on a pre-plant basis, but logistics problems prevented this.



Shown in this August 7 photo above, the **MicroSoil**[®] trial area quickly “caught up” and in fact became more mature than the control area planted 2 weeks earlier. The **MicroSoil**[®] trial area is on the right and the control area is on the left. Note the fuller tasseling and slightly higher stalks on the **MicroSoil**[®] trial area corn.



The photo on the left from August 7 shows the typical **MicroSoil**[®] corn crop, both ears developed and visible with the top of the second ear 16 inches above grade.

The photo on the right shows More **MicroSoil**[®] corn without the tape measure. Note that both ears are visible and tasseled.



The photo on the left shows the control crop, on the other hand, has a first ear that tops out at 12 inches with a very small second ear.



Urgent customer demand prompted harvest of the entire crop on August 14, a week later than the August 7 evaluation. The control crop was harvested first. Although not readily visible in the photo, many second ears were left in the field.

This photo shows the **MicroSoil®** corn immediately before the harvest.



This photo (left) shows the **MicroSoil®** area immediately after the harvest.

- The control area took 28 rows to fill a trailer and in most cases the second ear was rejected as too small.
- **The 64 rows of the MicroSoil® trial area filled 5 trailers, 13 rows per trailer with the second ears being largely acceptable.**

The maturity cycles are clearly very different:

- The control planted on June 1 needed at least 10 more days until August 24, a total of 85 days to fully mature.
- **The MicroSoil® corn matured between June 14 and August 14, a total of 61 days, 28 % less time than the control.**



The photo above taken the same day as the harvest, August 7, shows the difference in root development. The **MicroSoil®** root system is on the right, the control on the left. Note the significantly increased levels of feeder roots and root hairs on the **MicroSoil®** root system.



As the BRIX meter on the left indicates, the BRIX on the control was 14.8. On the right is the **MicroSoil®** trial result of 16.8 BRIX. This 13% better BRIX was validated by blind taste tests in which all of the participants indicated that the **MicroSoil®** corn even tasted better.