



Sugar beet virus yellows

Additional information for note of September 2017

Yield Impacts – October 2017 (Observation 934DE)

Technical itinerary of Plot 934DE (Normandy) :

- "Standard" seed
- Sown on 3rd April
- 4 insecticide treatments (pyrethroids/neonicotinoids) during crop growth:
 - treatment 1: 25th May 2017 (pyrethroids)
 - treatment 2: 8th June 2017 (pyrethroids)
 - treatment 3: 23rd June 2017 (pyrethroids)
 - treatment 4: 13th July 2017 (pyrethroids/neonicotinoids*)

** neonicotinoid treatment too late to control the aphid populations vectors of virus yellows.*

- First symptoms of virus yellows observed 15th July 2017
- Harvest on 23rd October 2017 in two modalities:
 - healthy beets,
 - beets affected by virus yellows.
 - elementary/basic plot size: 3 rows of 5 m with 4 repetitions.
 - Implementation: one repetition corresponds to 1 plot in a virus outbreak and 1 plot in the contiguous healthy zone. We took the samples from the same rows for each repetition.

Table of trial results – 934DE (Factor 1: virus yellows)

	Beet weight t/ha	Sugar content %	Sugar / ha t /ha	Sugar / ha index
No virus yellows	105.8	18.38	19.43	100
Virus yellows	77.48	16.38	12.69	65

In this example/trial, 31.52% of the plot was affected*, and 68.48% was unharmed on 23rd October, date of harvest.

- Incidence/effect of the disease on infected zones compared to uninfected control: 35% decrease
- Incidence/effect on the entire plot: 11% decrease

** Estimated area affected by virus yellows: 31.5 % - (using PREVIBET – ITB image analysis)*

*Symptoms of virus yellows
observed in October 2017 in*

Photo ITB October 2017

