Practical Experiences with self moving test bench

Annex to
SPISE advices on field crop and orchard sprayers adjustment at a workshop
(A.herbst, J.Langenakens, P. Balsari)

Kris Ruysen, Research Station for Fruit Growing (pcfruit), Department of Environment and Technology

Fruittuinweg 1, B-3800 Sint-Truiden – 0032 (0)11 69 70 80 – pcfruit@pcfruit.be
Experiences with self moving test bench

May 2015
• First demo
• Comparison of 10 orchard sprayers
Service for growers: Adjustment of orchard sprayers

- November 2015
  - Presented at Fructura Fair Hasselt (B)
  - Award “most innovative exhibitor”
- Januari 2016 start service
  - At pcfruit
  - On growers locations
- April 2016
  - 80 sprayers adjusted
Example new machine
Personal approach
Type of adjustments

• Air stream adjustments
  – Position flaps top, bottom, middle
  – No clean air assist system

• Position of nozzles
  – Adaptions by farmers / dealers are a risk
  – Damages to nozzle holders

• Nozzle sizes

• Crop height

• Additional tests reducing fan speed
  – fuel consumption, noise, wear and tear
Test bench
ligneous small fruit and vineyards
Conclusions

• Adjustments on orchard sprayers are necessary
  – 80 machines adjusted – 1 machine / 1 side OK

• Growers like the personal approach
  – Training on how their machine functions into their orchard

• Growers are willing to pay for adjustments
  – 20 ha apple / pear -> cost < 0.5% of the yearly PPP cost
  – Possibility to reduce the amount of PPP’s
  – Advantages of reduced fan speed