

## Ten workshops spray application techniques in fruit growing

**Heijne, B.**

Wageningen University and Research Centre, Applied Plant Research (WUR-PPO-fruit), P.O. Box 200, 6670 AE Zetten (The Netherlands); e-mail: [bart.heijne@wur.nl](mailto:bart.heijne@wur.nl)

Spray application is today an important issue both by policy makers and as a research subject. This is especially so in fruit growing. Droplets can drift high in the air by the horizontal and upward directed air support into neighbouring fields and field margins including a diversity of water courses. Deposits of pesticides, meant to control pests and diseases, are today more and more seen only, as risks to the environment and to human health. That was different thirty years ago. Of course, visionary researchers saw the phenomenon of unwanted drift and developed a full automatic, self driving tunnel sprayer called OOSEF in the 1980's (Werken, 1991). But, this was too far ahead of practice and was mostly laughed at. None-the-less, the idea and principles were picked up again in 1990. Inspired by a car engineer, Norbert de Schaetzen, the Royal Research Station of Gorseme, in Belgium, started tests with a Joco tunnel sprayer equipped with rotary atomisers. Also, the research institute IMAG (now WUR/PRI) developed a pulled tunnel sprayer based on their OOSEF model, which was field tested in Numansdorp, The Netherlands (Heijne *et al.*, 1993). Exchange of ideas and results of the first field tests with tunnel sprayers was organised in Gorseme, Belgium in 1991 between researchers from Belgium and The Netherlands. The next year, 1992, a similar meeting was organised among researchers from France, Switzerland, Belgium and the Netherlands at the former Research Station for Fruit Growing (now WUR/PPO) in Wilhelminadorp, the Netherlands. Looking back, this meeting in the Netherlands was recognised as the first Workshop Spray Techniques in Fruit Growing. Workshops followed in different countries: 2<sup>nd</sup> La Morinière, France (1993), 3<sup>rd</sup> Wädenswil, Switzerland (1994), 4<sup>th</sup> East Malling, England (1995), 5<sup>th</sup> Radziejowice, Poland (1996), 6<sup>th</sup> Leuven, Belgium (2001), 7<sup>th</sup> Cuneo, Italy (2003), 8<sup>th</sup> Barcelona, Spain (2004), 9<sup>th</sup> Alnarp, Sweden (2007) and finally back in Wageningen, the Netherlands in this 10<sup>th</sup> workshop in 2009.

During the years, the type of meetings gradually changed. In the first years testing of different types of tunnel sprayers was the main subject of discussion. Nowadays, all aspects of spray application techniques are presented. Similarly, the character changed from literally working together and setting up common testing protocols with participants on invitation only. Towards a full symposium with presentations, posters and proceedings, recognised as an important forum on spray application techniques in fruit growing not only in Europe but worldwide.

### References

- Heijne, B, Hermon, E.A. van, Smelt, J.H., Huijsmans, J.F.M.** (1993) *Biological evaluation of crop protection with tunnel sprayers with reduced emission to the environment in apple growing. Proc. of ANPP – BCPC 2<sup>nd</sup> Int. Symp. on Pesticides Application Techniques, 23-24 September 1003, Strasbourg, France, pp. 321-328.*
- Werken, J. van de** (1991) *The development of an unmanned covered air-assisted sprayer for orchards. In: Lavers A, Herrington P, Southcombe ESE (Eds.) Air-assisted spraying in crop protection. BCPC monograph no. 46, Farnham Surrey, UK, pp. 61-68.*