



Value creation of cross border cooperation for field trial experiments

Minor crops

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Why cross border cooperation – minor/”new” crops

Example:

- Plant based food – growing interest in new or minor crops:
 - Linseed
 - Chickpeas
 - Phaseolus (eg black beans, kidney beans)
 - Quinoa
 - Hemp
 - Other new crops

Challenges with new/minor crops

- Development of adapted varieties
 - Small areas
 - No experiences among farmers with the crops
- Growing new crops – first step based on available seed/varieties
 - How do they do it where it is grown today (Internet, excursions etc.)
 - How can we optimize the growing under our growing conditions
 - Seed: Inoculants?
 - Fertilizers
 - Sowing: Date (soil temperature), rate, depth
 - Growing season: Weed control, diseases, pest – “no pesticides available”
 - Harvest: When and how, handling post harvest

Do we have to do the same in all trials?

- Yes
 - Maximum effect of the trials – more trials more reliable results
 - Project financing difficult with national money – international projects a possibility
- No
 - You don't have to agree on everything
 - You can explore the benefits of the common results

Let's look at an example:

- In DK we would like to make a trial series of 3 trials with:
 - 3 varieties of chickpeas, two types of inoculants and two sowing rates
- In Sweden they would like to make a trial series of 4 trials with:
 - 5 varieties of chickpeas, one inoculant and two sowing rates
- If we could agree on 3 varieties, one inoculant and the two sowing rates, we could for the same investment have:
 - 7 trials with 3 varieties, one inoculant and the two sowing rates
 - Plus:
 - 4 Swedish trials with 5 varieties, one inoculant and two sowing rates
 - 3 Danish trials with 3 varieties, two types of inoculants and two sowing rates

How would that be possible?

- Data should be accessible and can be used by all parties involved in the cooperation.
 - Of course they should be accredited
- No money has to cross borders
 - The project description should allow for this kind of cooperation
- The data of the trials could be handled in a common database
 - This would make the cooperation easier

What about new varieties?

- New varieties of small crops must be developed in cooperation between public research and private breeding.
 - The market for commercial varieties will probably be too small to support an ordinary commercial breeding.
- Testing can be done cross borders including all of the common varieties.
 - Not a new idea, it was tried in winter wheat 1999-2002