



BREEDERS' PERSPECTIVE on DUS TESTING

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Rijk Zwaan: healthy business

- Sound, independent family business
- HQ in the Netherlands, De Lier/Fijnaart
- 1.500 employees, including about 850 abroad
- Focus on research (1/3 employees in R&D)





RZ = vegetables

- 20 vegetable species and > 800 varieties
- 130 new varieties per year
- For the professional grower; open field and covered cultures worldwide
- Organic range available
- Annual turnover approx. € 175 million (2008/2009)
- Worldwide middle position



RZ is international



25 subsidiaries; sales in 80 countries





Applications: numbers & locations

- In EU Rijk Zwaan has largest number of PBR applications in vegetables
- Outside EU, PBR applications in: Argentina, Australia, China, Japan, Mexico, South Africa, Turkey and USA



DUS official description

Basis of possible disputes is the official technical description made by the DUS examination authority





DUS official description

Based on:

1. DUS examination by examination office, OR
2. Take-over existing DUS report, OR
3. Breeder's trials



1. DUS examination by examination office

Basis of DUS examination is:

- UPOV technical guidelines
- Technical questionnaire
- Reference collection
- Facilities
- Qualified DUS examiners



UPOV Technical Guidelines

In vegetables DUS examination does not require examination of the parent lines in case of PBR application of a **hybrid** (see relevant UPOV technical guidelines), so:

- No requirement for samples of parent lines
- No requirement for TQ's of parent lines



TQ – avoid misinterpretation

- Not only in local language, but also in English not only characteristics, but also the notes
- Reference to UPOV technical guideline



TQ – avoid misinterpretation

- Even better, ISF multilingual form
- Agents or certified translators are not breeders
- Breeders can not check the translated text
- Direct contact between breeder and authority



TQ – ask what is needed

- Purpose TQ: to establish most similar varieties, to be sown in DUS trial
- Only characteristics for this purpose should be filled in mandatorily
- No detailed breeding history
- For vegetables:
 - no mandatory photographs
 - no VCU characteristics



TQ – ask what is needed

- Additional information can always be asked, but if not present, not a reason to reject application
- Breeders are not DUS examiners, so not qualified to fill in complete UPOV protocols.



Facilities - confidentiality

- Coded trials
- In vegetables, parent lines are the backbone of the breeding companies, therefore confidentiality is of utmost importance, so:
- Exchange of plant material of inbred lines ONLY with consent of breeder
- No direct or indirect access to plant material of parent lines by third parties



Reference collection

UPOV inquiry 2000

| Crop | Minimum | Maximum |
|--------|----------|-----------|
| Barley | 18 (PT) | 750 (FR) |
| Wheat | 23 (NL) | 1115 (FR) |
| Maize | 30 (RU) | 3833 (FR) |
| Potato | 250 (SK) | 1070 (UK) |



2. Take-over existing DUS report

Advantages:

- Efficient: saves time and money
- Good alternative in case DUS facilities are not (yet) up to standard for a certain species
- No possible interpretation problems



3. DUS report based on breeder's trial

Disadvantages:

- Breeders are not qualified DUS examiners
- More costly/complicated for breeders when UPOV guidelines cannot be followed
- More time consuming than take-over option
- Less reliable for examination authority



3. DUS report based on breeder's trial

So, if DUS examination is not possible locally,
take-over option is by far preferable



Conclusion

- Vegetable breeding companies are experienced in applying for DUS examination, either for national list or for Plant Breeder's Right as long as UPOV is being followed.
- Breeders are not translators or qualified DUS examiners
- The official technical description should be made by qualified DUS examiners



Conclusion

Make use of existing expertise:

- UPOV technical guidelines
- Naktuinbouw Helpdesk
- Breeders are always willing to give additional information for assistance

Let UPOV be your guide



Thank you for your attention