

ITAB colloque

„Agriculture biologique et sélection végétale“



28/29 Avril 2009

Gebhard Rossmannith

Bingenheimer Saatgut AG

Network for organic and biodynamic
seeds and plantbreeding

Network for organic and biodynamic seeds and plantbreeding



70 market gardeners in Germany, Suisse, Austria, Nederlande, France and Italy

- ▶ seed production
- ▶ exchange of experiences, education



Kultursaat e.v.

- ▶ breeding research
- ▶ development of new varieties
- ▶ maintaining of varieties
- ▶ public relations

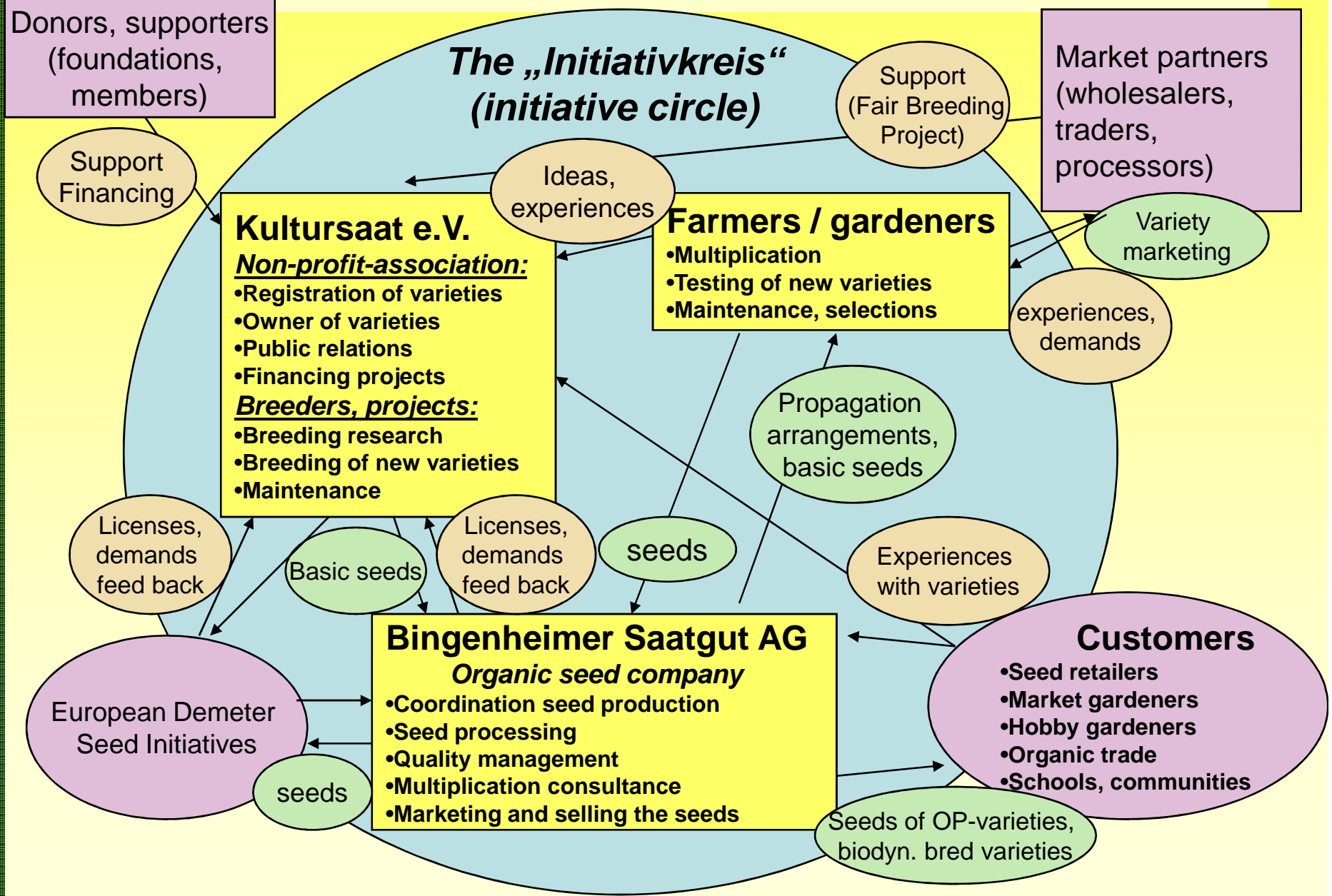
19 locations of breeding projects

- ▶ Coordination of seed-production and -processing, quality management
- ▶ multiplication consultancy
- ▶ Filling, marketing and selling seeds



Bingenheimer Saatgut AG
Ökologische Saaten

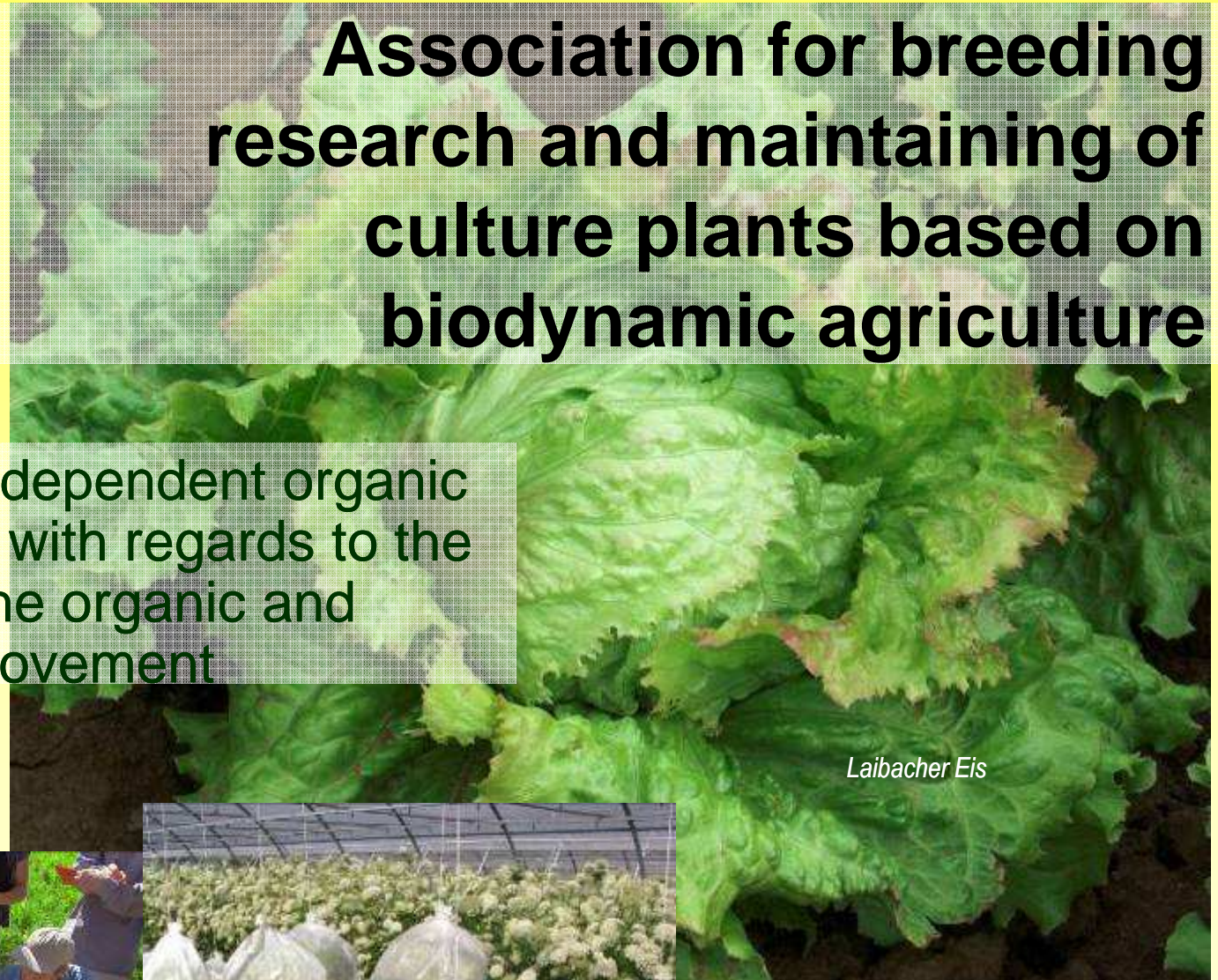
Network for organic and biodynamic seeds and plantbreeding





Association for breeding research and maintaining of culture plants based on biodynamic agriculture

Work for an independent organic plantbreeding with regards to the principles of the organic and biodynamic movement



Laibacher Eis



Nandor F1

Rodelika

Motivations of starting up

▶ established in 1994; the vision:

„seeds have to remain our common cultural heritage!“

▶ Availability of seeds and suitable varieties for the professional organic gardening

▶ maintaining of suitable varieties and breeding of new varieties



Approach and success

- ▶ breeding is integrated in biodynamic / organic. farming
- ▶ positive and negative *mass-selection*, *crossing*
- ▶ *taste is an important criteria of selection*
- ▶ *on-farm* breeding at *19 project locations*
- ▶ *Financing* by donations, licenses and membership-fees, but also by partners in the market chain (***Fair breeding*** project)
- ▶ *35 new bred varieties* officially registered, 9 in application
- ▶ *12 free varieties as maintainer* registered, 5 in application
- ▶ *different awards* for the work of Kultursaat- breeders

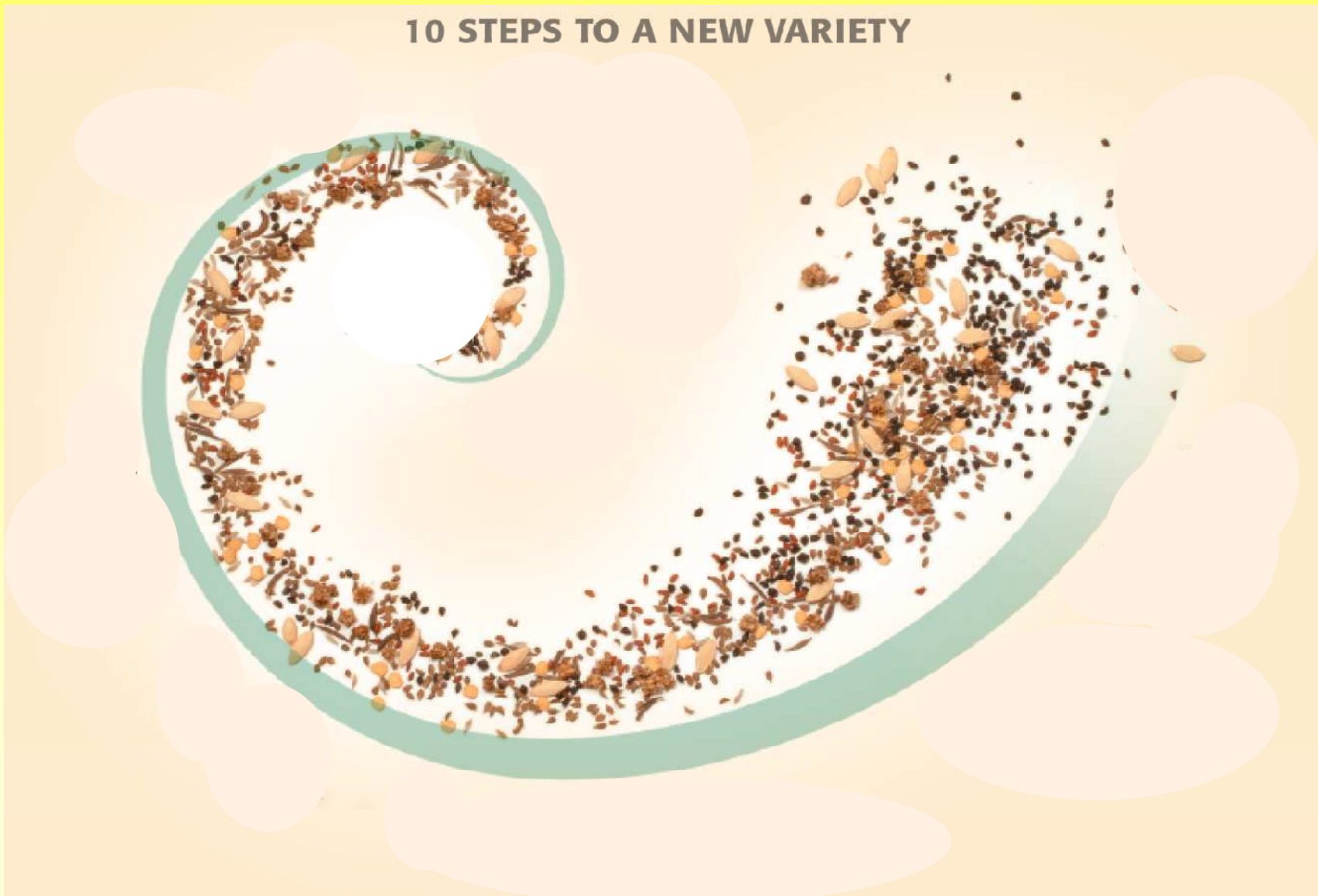


Our quality-visions

- ▶ complete work within biodynamic / organic farm systems (⇒ basis for maintaining and breeding)
- ▶ consequent way from *organic multiplication* to *biodynamic bred and maintained varieties*
- ▶ exclusion of biotechnological breeding methods (in-vitro passages etc.)
- ▶ reproduceable (=open pollinated) varieties (possibility for local adaption),
no hybrids
- ▶ well-balanced, intensive, harmonic *taste*
- ▶ positive rooting and good nutrient uptake
- ▶ robust natural power of field tolerance



10 STEPS TO A NEW VARIETY



Kultursaat e.v.

breeding of new varieties

important fundamentals:
exchange at the meetings of the
Initiativkreis
about projects, varieties,
strategies



Summer:

meetings on the farms (practical education, focussing on certain crops)

Autumn:

general assemblies of Kultursaat and Bingenheimer Saatgut AG (strategies, theoretical education)

Winter:

breeders conference (exchange, education, meeting of crop groups)



Association for breeding research and maintaining of culture plants based on biodynamic agriculture

Specific methods and techniques to control the inner qualities of a variety

Picture-forming methods: rising pictures and copper-chloride-cristallisation



D. Bauer, Dottenfelderhof,

- white cabbage
- red cabbage
- carrots
- parsnips



Kultursaat e.v.

breeding of new varieties – some projects

Pilweri, near Freiburg

- tomatoes
- aubergines
- leek
- carrots
- salads
- sweet peppers



Obergrashof, near Munich

- cauliflower
- kohlrabi
- radish
- carrots
- chicorée



Chr. Henatsch, near Hamburg

- pointed cabbage
- kohlrabi
- radicchio
- carrots
- salads



Further tasks to support the breeding efforts

Public education project about plant breeding issues

- work in cooperation:

Kultursaat e.v.

Association for breeding research and maintaining
of culture plants based on biodynamic agriculture

FORSCHUNGSRING e.V.

Research circle for biodynamic
agriculture

started in 2003

Bingenheimer Saatgut AG
Ökologische Saaten

The marketing of varieties

2002:

analysis of the situation

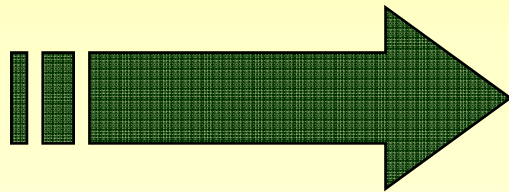
there is a need to communicate the issue of plantbreeding into the market stakeholders (traders, processors, consumers).

2003:

goalfixing and planning phase

expert survey

(breeders, producers, traders, customers)



not to communicate only breeding affairs, but also the varieties (and their history!).



Variety marketing

The marketing of varieties

2004:

developing and testing phase

- ▶ development of the strategies
- ▶ test with 3 carrot varieties



2005:

performance and first experiences



2006:

broadening

4 more varieties (salad, spinach, cabbage, sweet pepper)

2007:

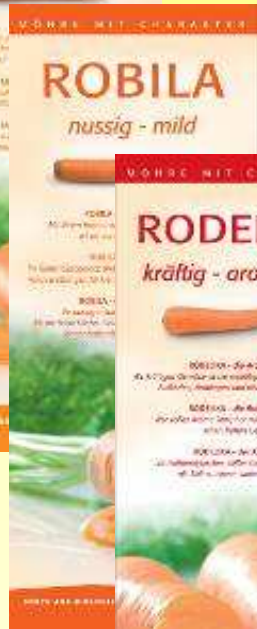
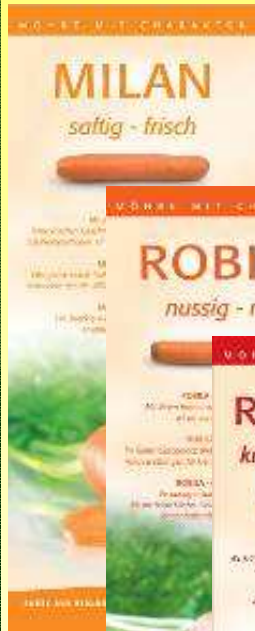
Further broadening

Next 3 varieties (ice salad, red beet, pumpkin)



The marketing of varieties

Easy-Displays for the point of sale



name of the variety

character of the variety



FAIR-BREEDING®

Bio-dynamische Pflanzenzüchtung als Teil assoziativen Wirtschaftens

Biodynamic plant breeding – a part of the associative economy



After three years of contact and workshops:
starting up at the Biofach 2008



Members of Naturata e.V. International support the biodynamic plantbreeding over ten years with a defined share basing on their whole fresh-market-turnover

FAIR-BREEDING®

Bio-dynamische Pflanzenzüchtung als Teil assoziativen Wirtschaftens

Biodynamic plant breeding – a part of the associative economy

The project:

a new approach of cooperation to keep the cauliflower culture in a consequent ecologic way: open pollinated instead of cms-hybrids!



Motion 26.1: All seed varieties (including propagation material or young plants) derived from protoplast/cytoplast fusion breeding techniques are excluded from cultivation on organic farms.

Rationale: Protoplast/cytoplast fusion is a patented, genetic engineering (GM) technique (it falls under the EU definition of genetically modified organism (GMO)), but is not labelled as such. The organic movement may lose credibility if this breeding technique is not specifically prohibited. It would also leave the door open to other (novel) GM-techniques that might also fall out of the GM-labelling category.

The CMS technique violates the integrity of life since it creates cells without cell walls, no cell nucleus and interferes with the coherence of the cell as the basic entity of organised life. It also violates the genetic integrity of plants by forcing,

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Biodynamic plant breeding – a part of the associative economy

The cauliflower breeding project ...



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Biodynamic plant breeding – a part of the associative economy

... started 2008 at four locations



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Bio-dynamische Pflanzenzüchtung als Teil assoziativen Wirtschaftens

Biodynamic plant breeding – a part of the associative economy

... and we learned a lot from our friends in Brittany



Biofach 2009: the next 12.000 Euro from Naturata for the project !



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Thank you for your attention!

Gebhard Rossmannith