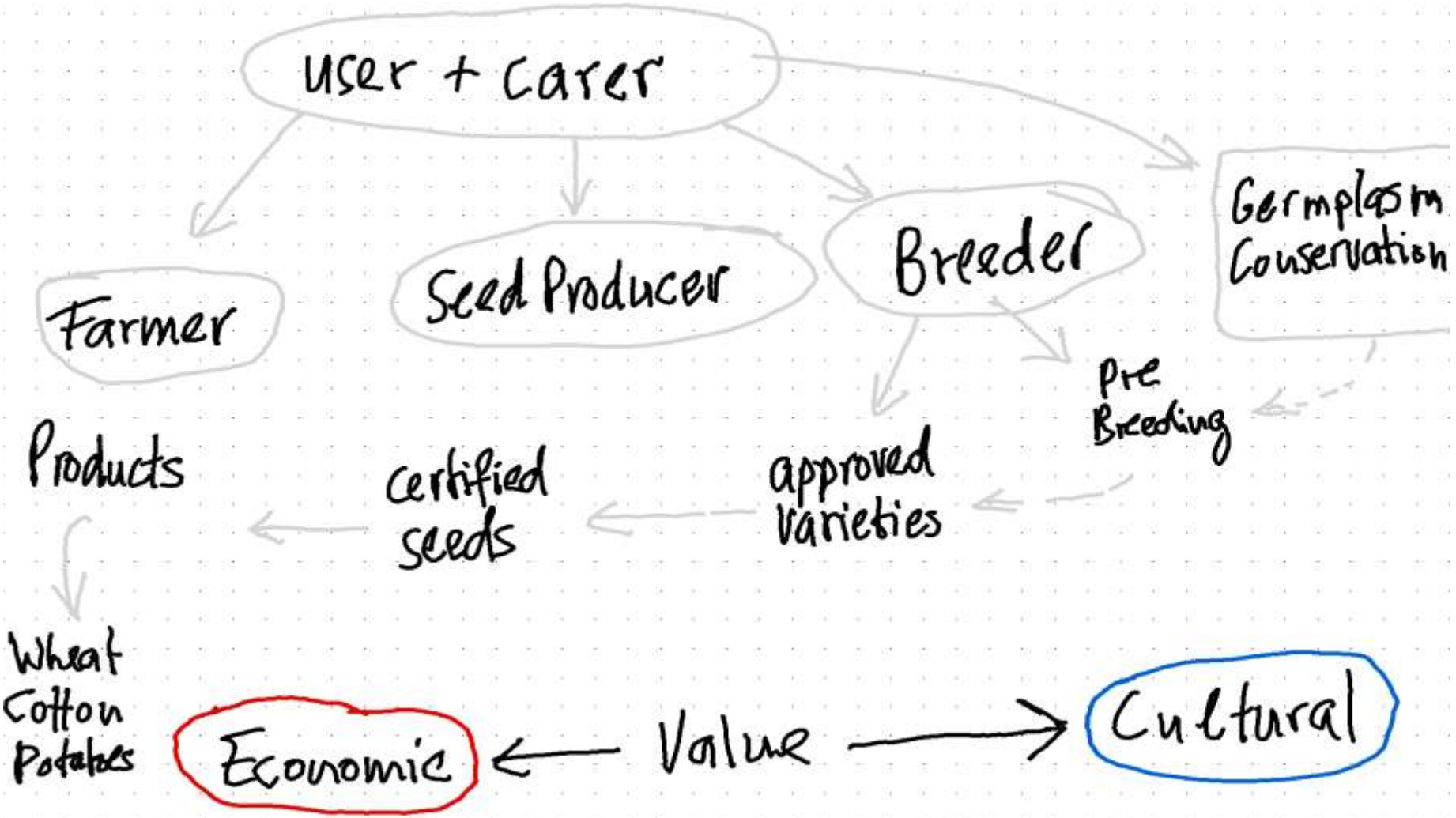
Seeds as Commons

Deepen Biodynamics & Associative Economics - 21.3. – 14.04.2022

Peter Kunz, Fund for Crop Development, Feldbach Schweiz

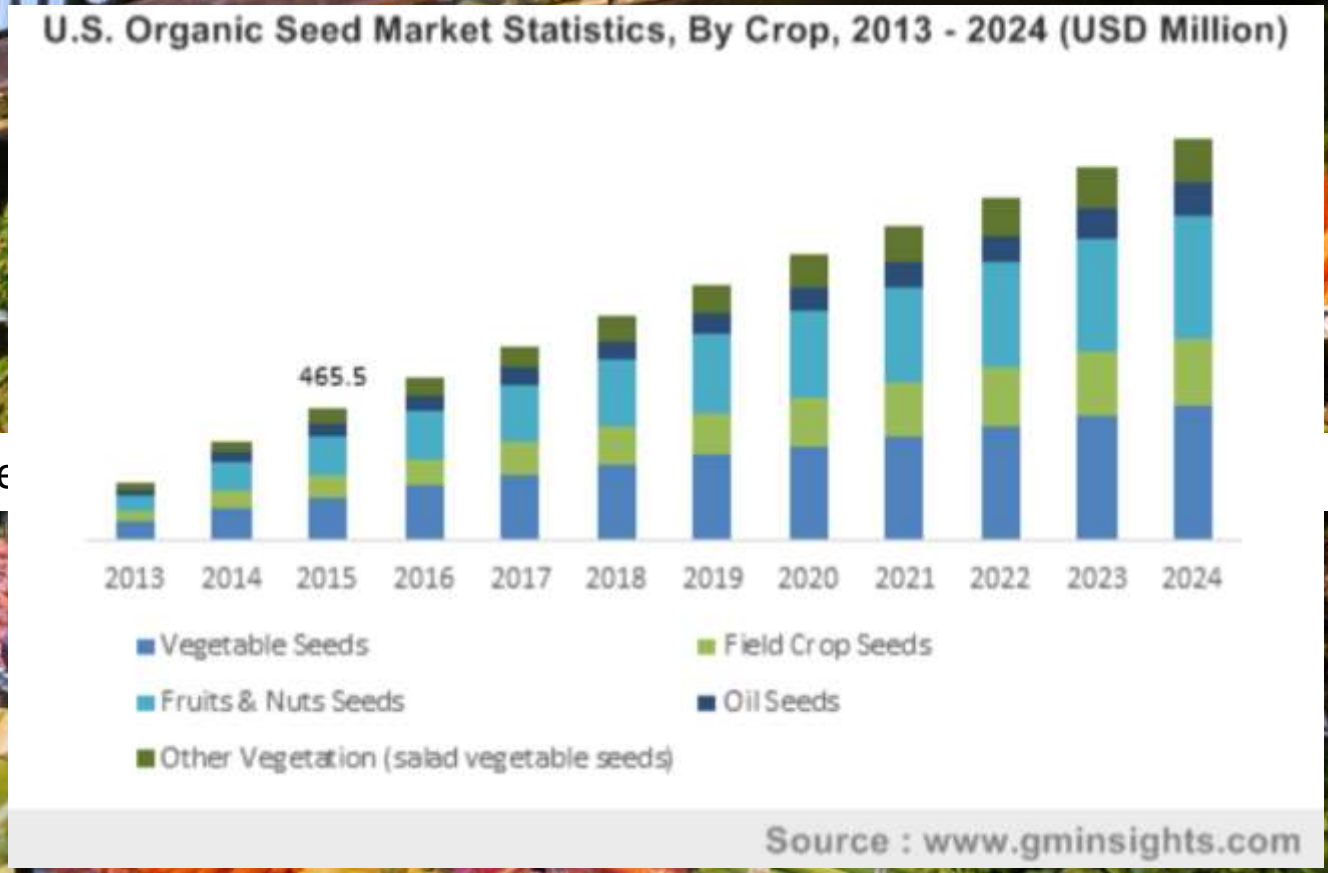

BAMYA TOHUMU
PAZI TOHUMU
KIZIL ISPANAK TOHUMU
UGANDA
DÖRT MEVSİM DAYANIKLI
ÇİM TOHUMU
GÖLGEYE VE GÜNEŞE DAYANIKLI
SÜS YONCASI
KETEN TOHUMU

From Subsistence to Agro-Economy



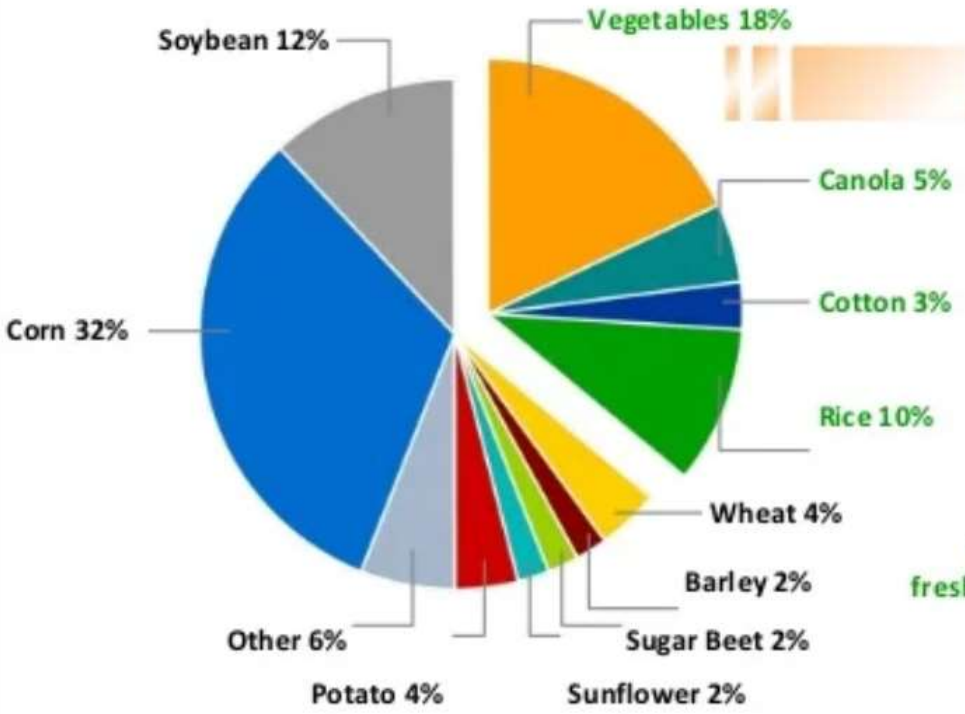
https://www.sektion-landwirtschaft.org/fileadmin/SLW/Literatur/Saatgutstudie/seeds_as_a_commons.pdf

36 species of ve

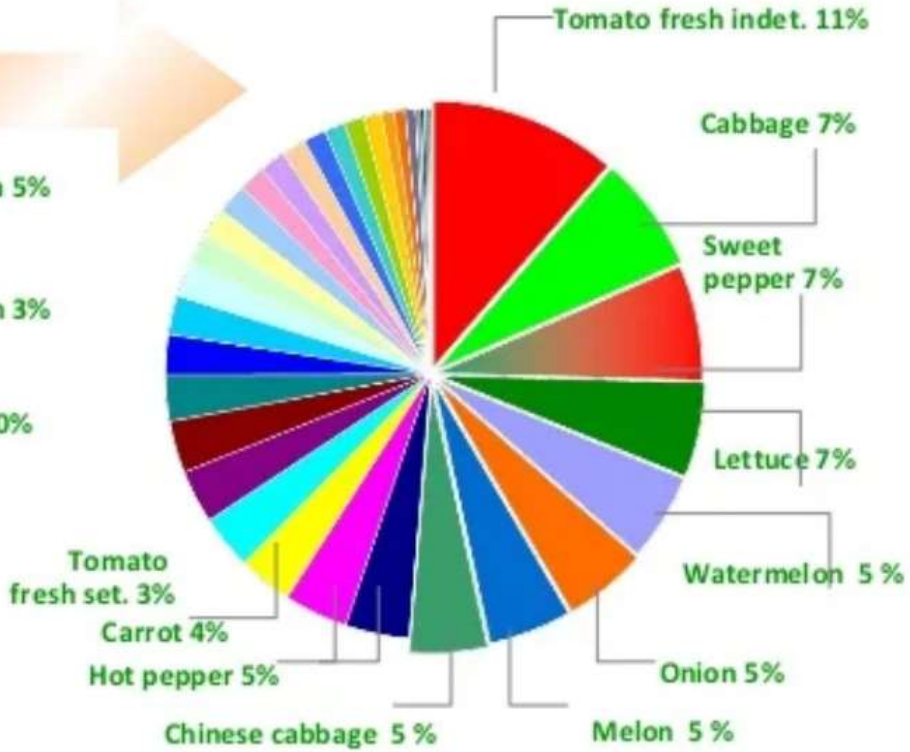


Global Seed Market Split

Seed

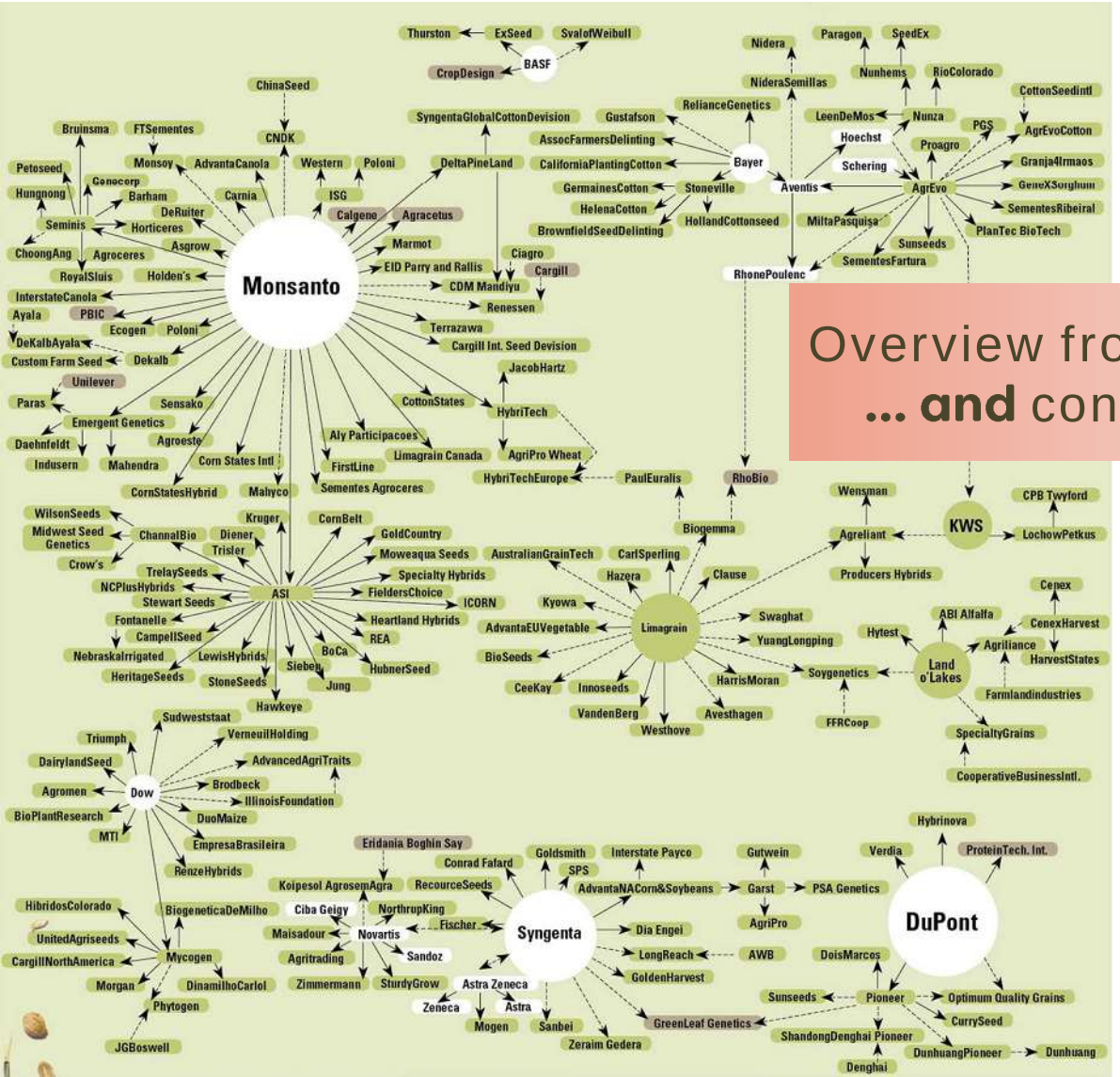


Vegetable seed



Internal assessment

Who owns whom in the Seed Market?

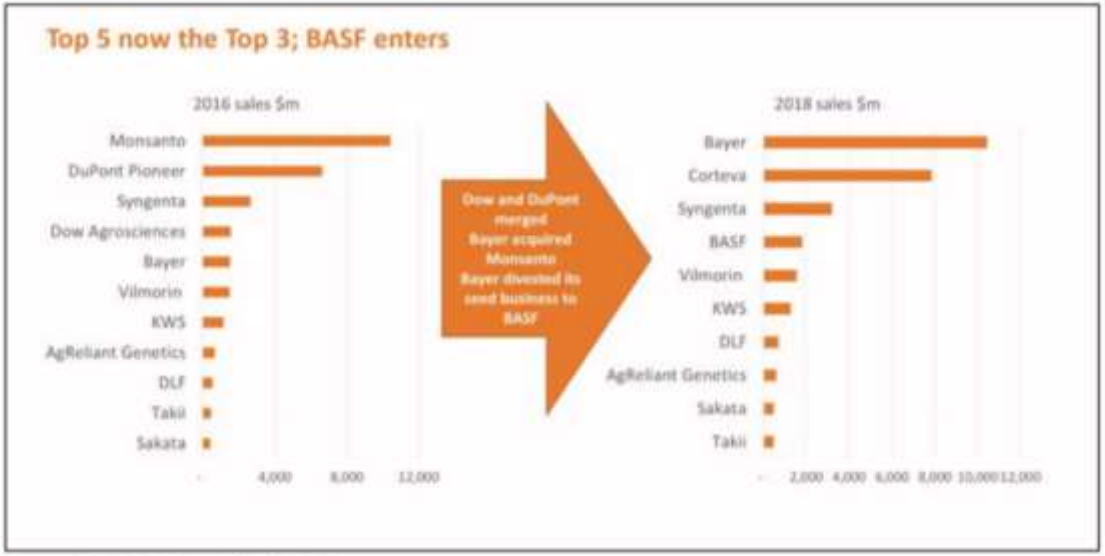


Overview from **2009...**

... and concentration does not stop!

Source: Philip H. Howard, www.mdpi.com/journal/sustainability, 2009 in Agropoly, 2011 by Public Eye (EvB)

Figure 3: Changing Seed Industry Structure



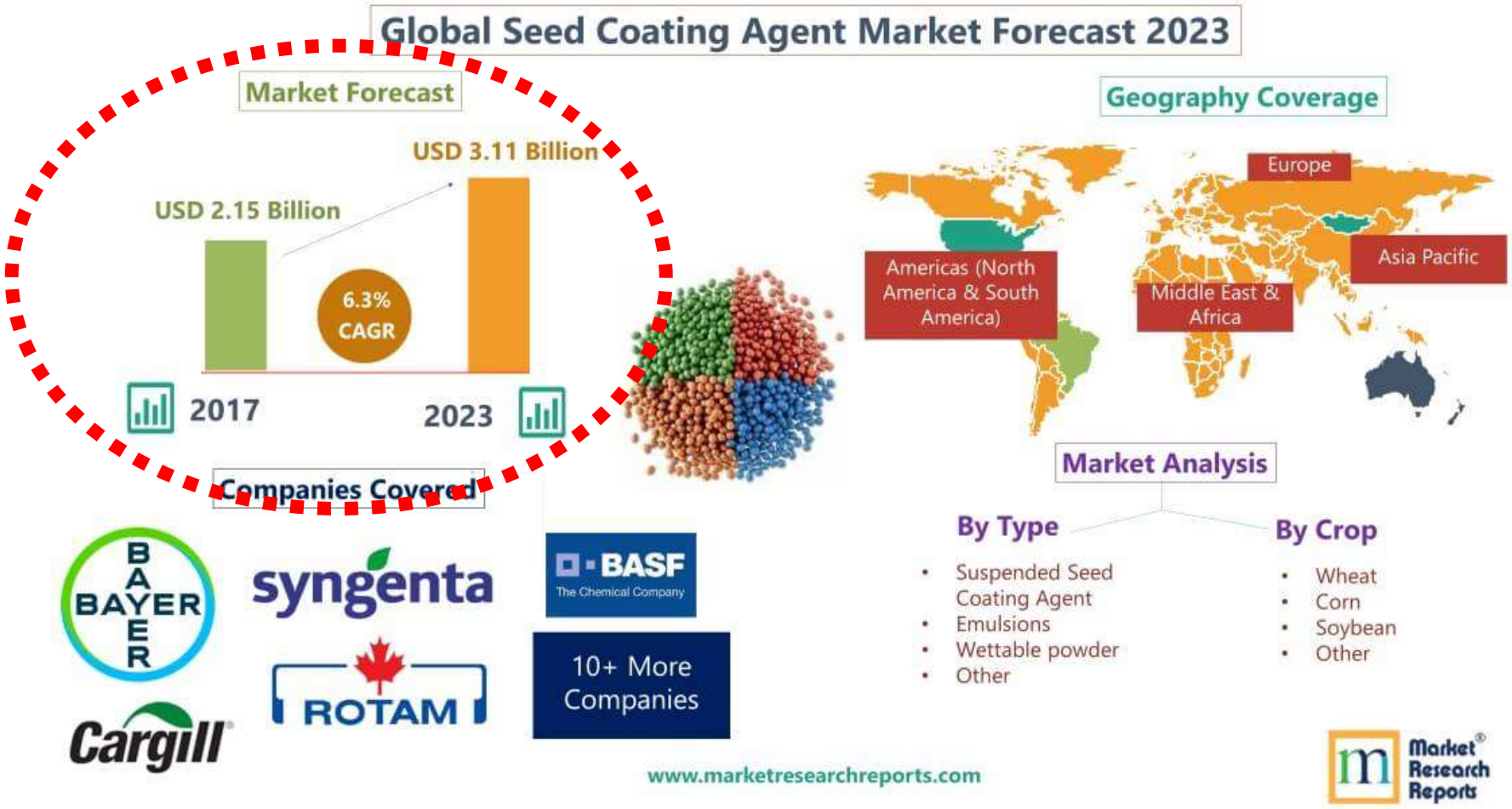
Source: Phillips McDougall/IHS Markit

Table 9: Tier 1 Seed Company Profitability 2017

Company	EBIT % 2017	Crops
Monsanto	26.7%	Maize, soybean, cotton, vegetables
Corteva	9.5%	Maize, soybean, cotton
Syngenta	10.0%	Maize, soybean, oilseeds, vegetables
Bayer	5.0%	Canola, vegetables, cotton, rice
Vilmorin	8.4%	Maize, vegetables,cereals
KWS	12.2%	Sugar beet, maize, cereals
DLF	5.7%	Forage crops
AgReliant	10%	Maize, soybeans
Kaneko	3.5%	Vegetables
Average	16.1%	
Average w/o Monsanto	**9.1%**	

Source: Phillips McDougall/IHS Markit

Seeds & Agrochemicals = Big Business !!

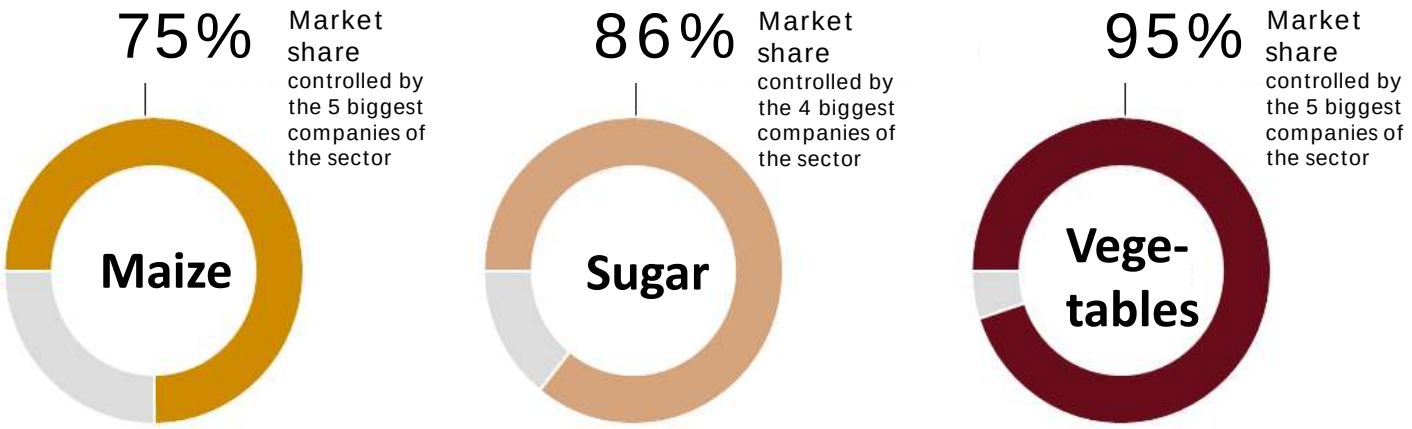


SEED Market Power

Concentration, Monopolies

- 4 seed companies are dominating more than 60% of the global seed and agrochemical market (Moldenhauer and Hirtz 2017)

- 5 biggest companies in the EU:



Source: Concentration of Market Power in the EU
Seed Market, The Greens / EFA Group in the European Parliament, 2014
in ProSpecieRara Documentation, 2014 by Public Eye/EvB

Need for Non-Profit Breeding

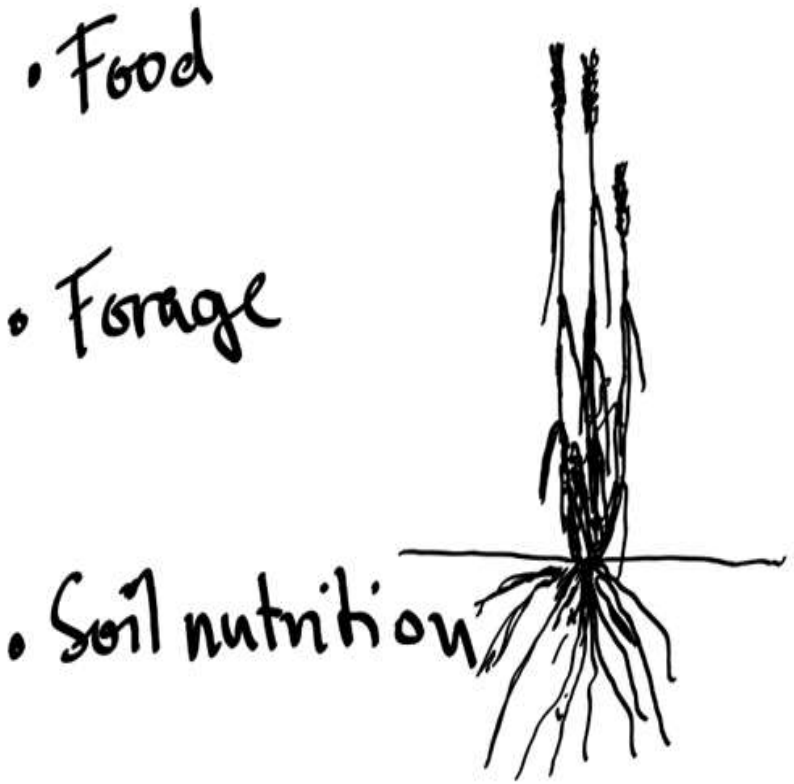
Organic Breeding for Commons

Agronomic Rules for Organic Breeding

- Reproducible = fully fertile varieties
- Breeding under organic conditions
- Respecting cells and genomes as inviolable units
- Respecting cross breeding barriers

Integration in a BioDynamic Farm

Yield for Soil, Animals and Humans



> Humans

>Animals

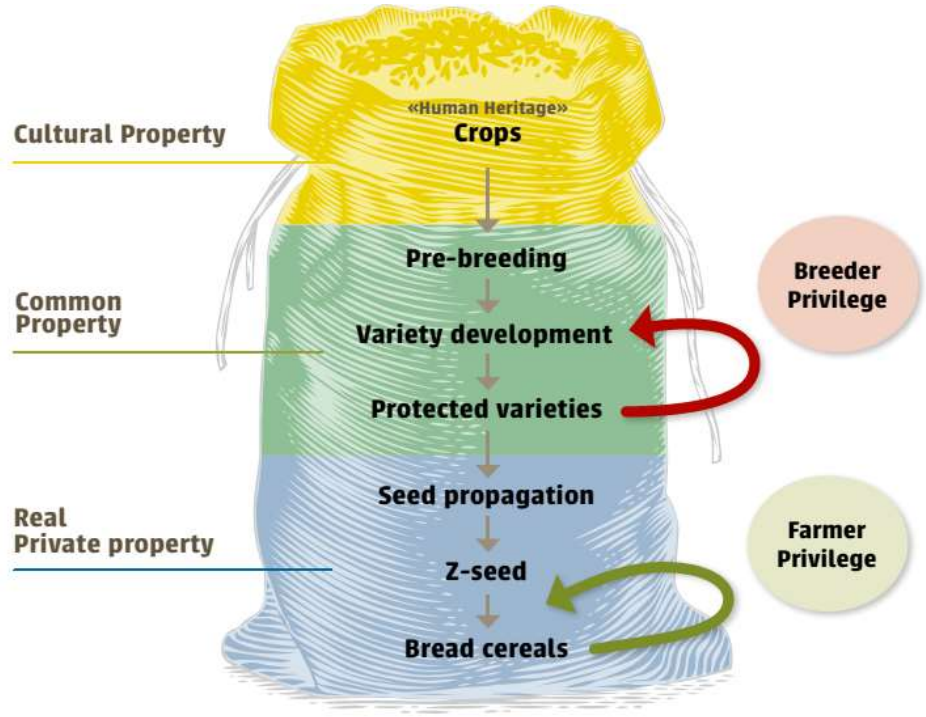
> Soil

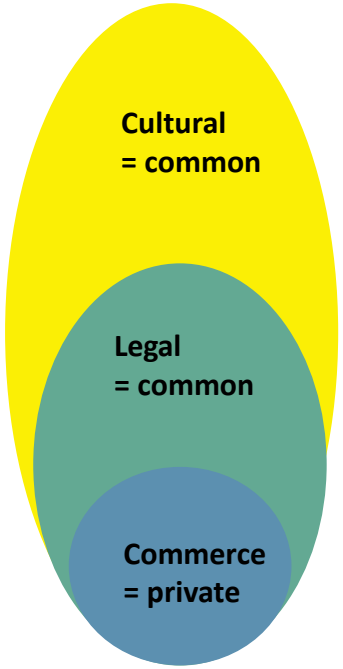
Wheat Breeding history 1900-2000

Loss of vitality & maturation

Seeds as Commons

Common & Private Property in the same bag





Wirz et al 2017, adapted

Seed as Commons

Legal, Social & Economic Rules

1. Plant variety protection – authorship and ownership
   - authorship is visible: PVPs in the names of the breeders = author
   - Non-profit ownership (e.V, gGmbH, foundation)
2. Organisation of a company – no shareholder capital
   - no privatization
   - non-profit budget
3. Transparency & Traceability
   - true cost and benefit accounting
   - our seeds hide no secrets – open breeding methods
4. Participative Financing

- Participation of effective users (farmers, processors, traders etc.)
- Safeguarding governmental tasks
  - Open access to common goods (genetic resources)
  - Acces to the market (variety testing (VCU)
  - Access to registration, research, training

gzpk.
Organisation

Non Profit Partners

GZPK – association non-profit

GZPK Germany non profit gGmbH

FKE - Foundation non-profit

Fondazione SiF Italia
Seminare il Futuro

Commercial Partners

Sativa Rheinau AG
Propagation, Marketing

Biosaat GmbH (D)

Bioland-HG. (D)

ProBio (CZ)

LD, Pinault (F)

Various (B, L, GB, P, IT, LV)

Breeding for Commons

Added Values & Challenges

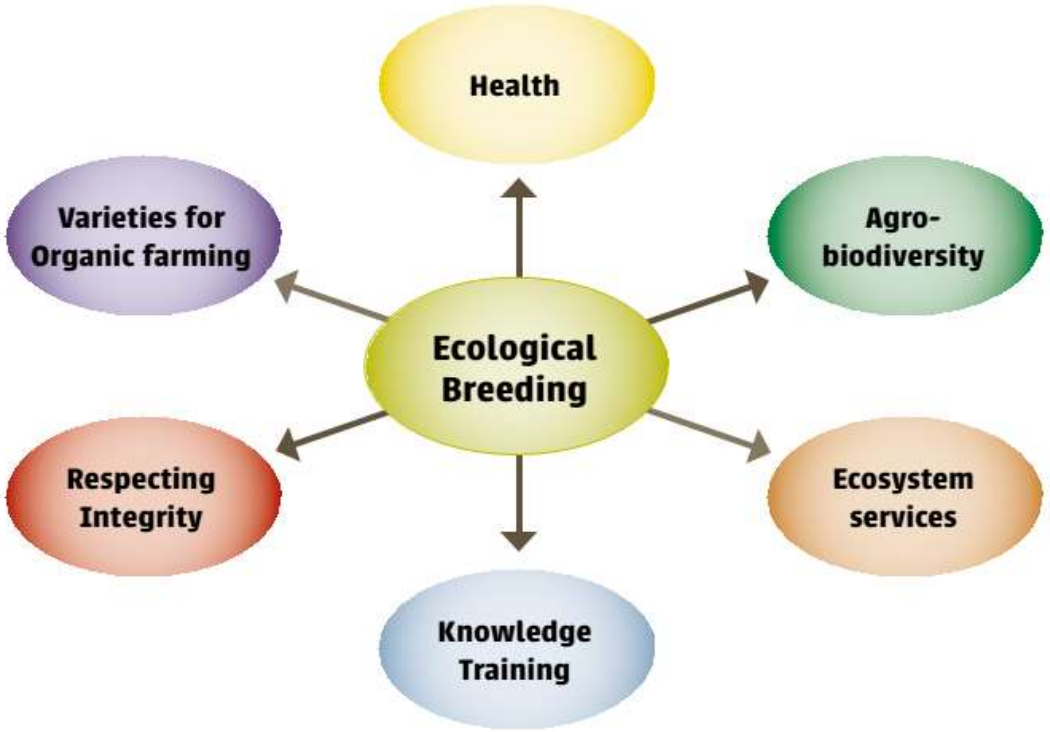
+ + + All variety types are part of organic breeding

+ + + large biodiversity and stability on farm

- - - Small Acreage per crop & variety

+ + + Contributions to eco system services (EES)

Common benefits of organic breeding



Wirz et al 2017

→ *Need for Monetarisation !!!*

Getreidezüchtung Peter Kunz
Verein für Kulturpflanzenentwicklung

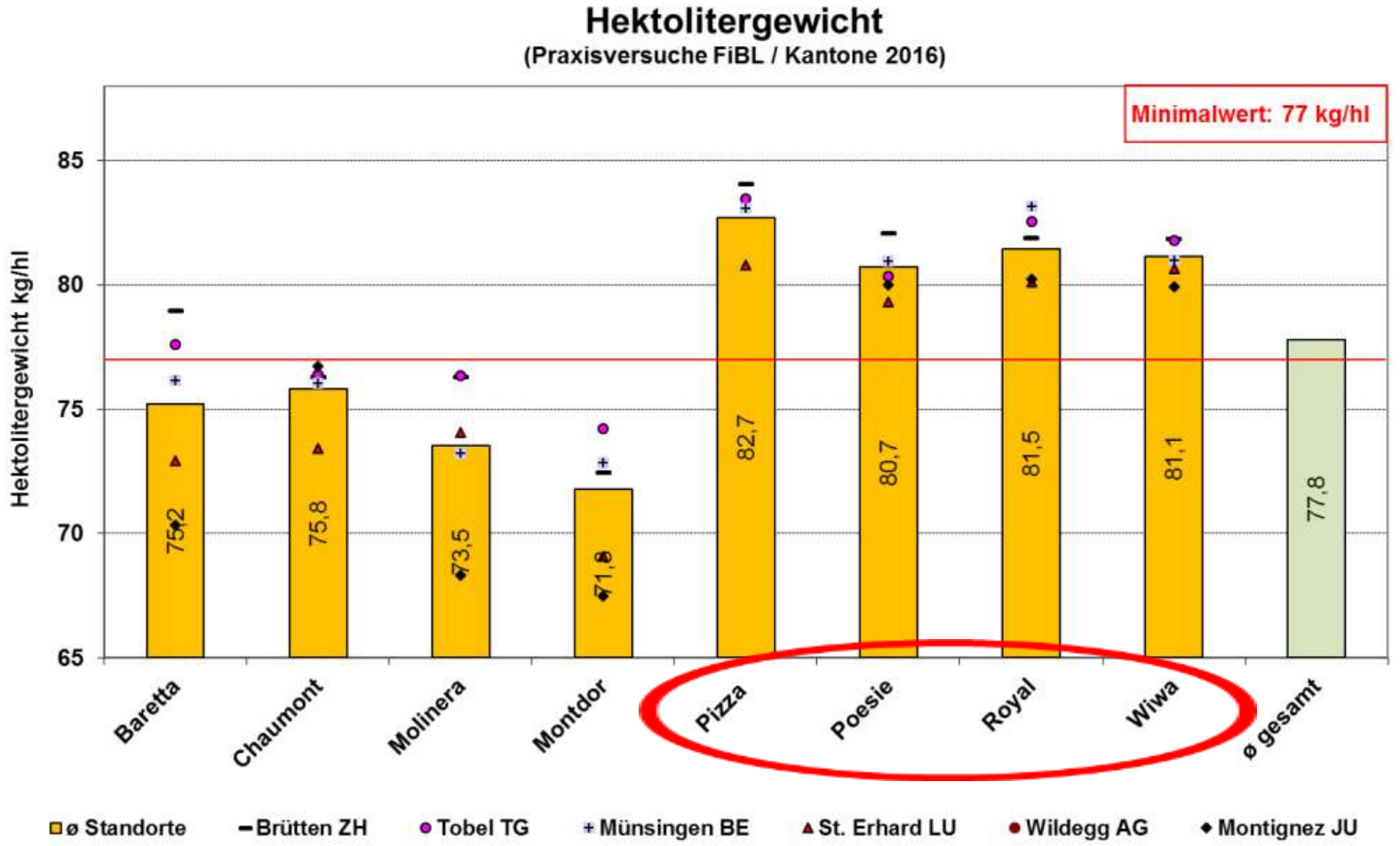
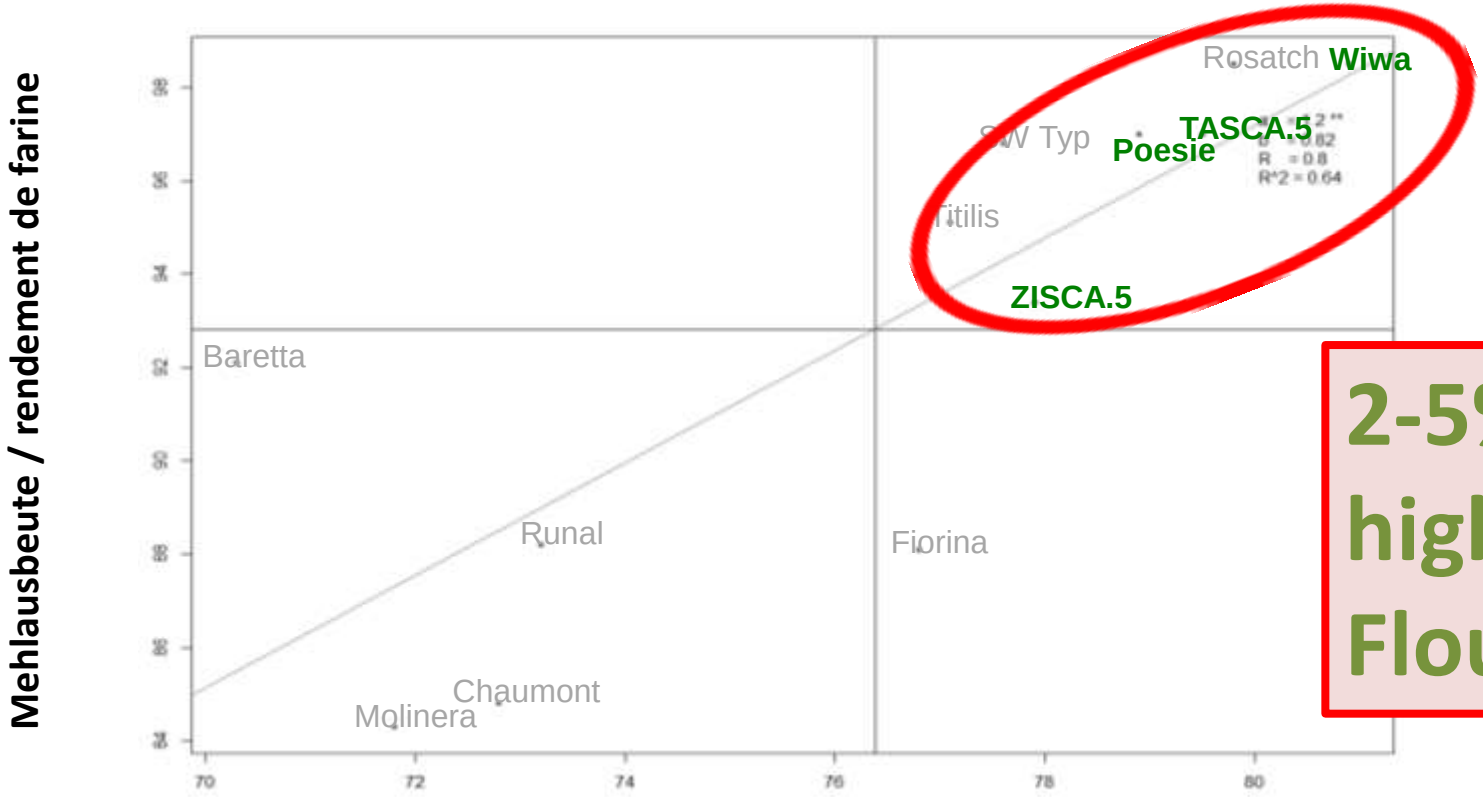


Abbildung 8: Durchschnittliche Hektolitergewichte nach Sorten und Standorten 2016, Minimalwert 77 kg/hl

Getreidezüchtung Peter Kunz
Verein für Kulturpflanzenentwicklung

Mehlausbeute und Hektolitergewicht

Bio-Exaktversuche Agroscope 2016



2-5% higher Flour yield

Mehr Brot dank besserer Mehlausbeute

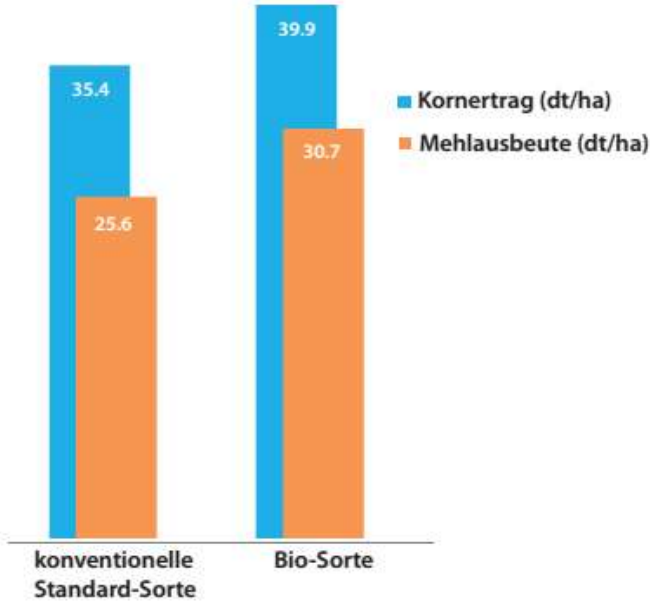
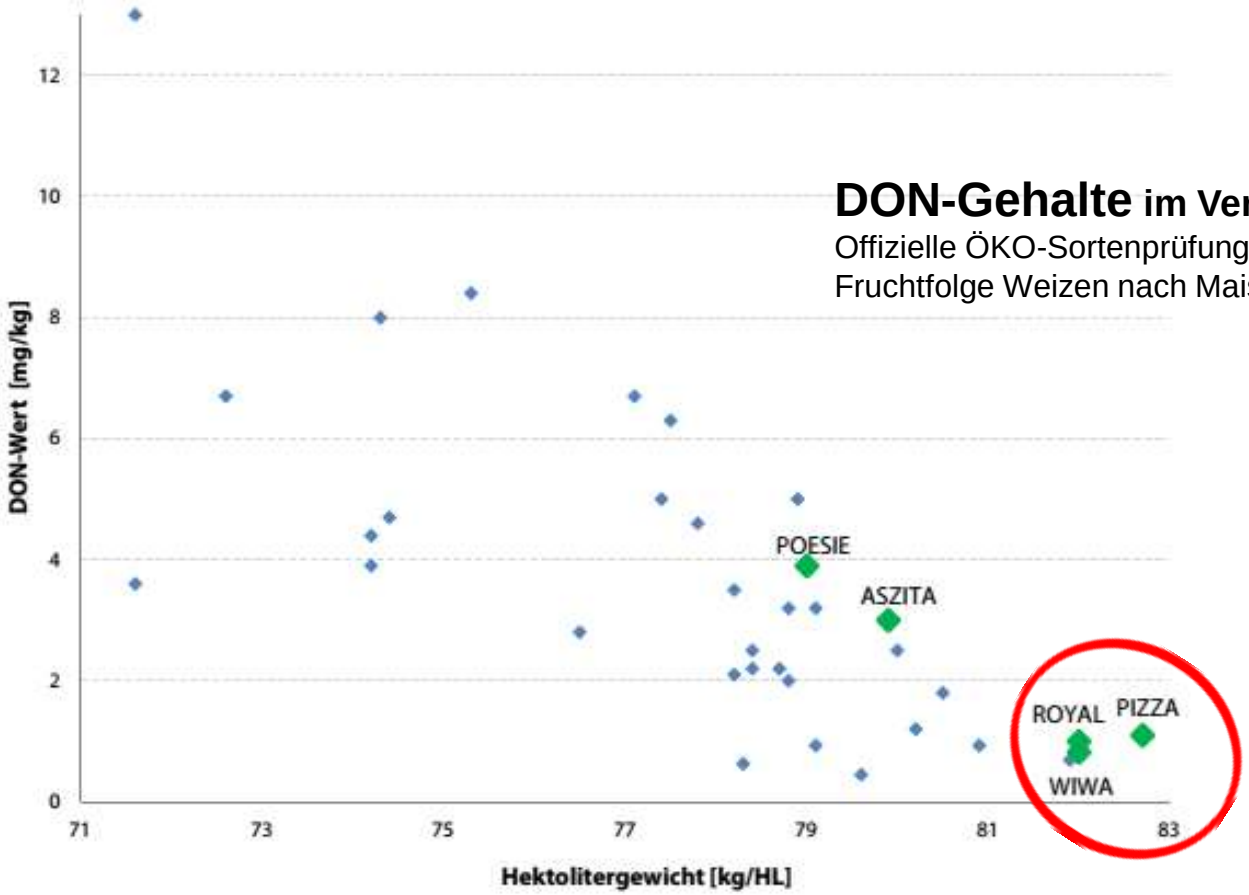


Abb. 2: Links – Vergleich Kornertrag ab Feld und Mehlausbeute, in Dezitonnen pro Hektare, FiBL-Streifenversuch 2016, mit konventioneller Standard-Sorte und GZPK-Bio-Sorten; Rechts – Brot-Mehrertrag dank besserer Mehlausbeute bei den Bio-Sorten

DON-Gehalte im Verhältnis zum Hektolitergewicht

Offizielle ÖKO-Sortenprüfung Crailsheim-Beurlbach 2016
Fruchtfolge Weizen nach Mais, reduzierte Bodenbearbeitung



+/- No Fusarium Toxins

The traditional Financing Model

Royalties

→Farmers have to pay

- → for breeding,
- → but also the profits of shareholder investors **(pension, hedge funds…)**

Non profit financing for Organic Breeding

+ + + Creates innovation space & biodiversity

- - - No true cost accounting!
- - - The Organic-Market did not pay its own breeding !

Private donations, Fondations

The Seed Commitement:
Common Responsibility

Value Chain ….

Increasing value from breeder to bread

Return ….

Organic Breeding as a COMMON TASK

Contribution:
1 per mille = 0.1% from the POS

Thank you for your attention!