

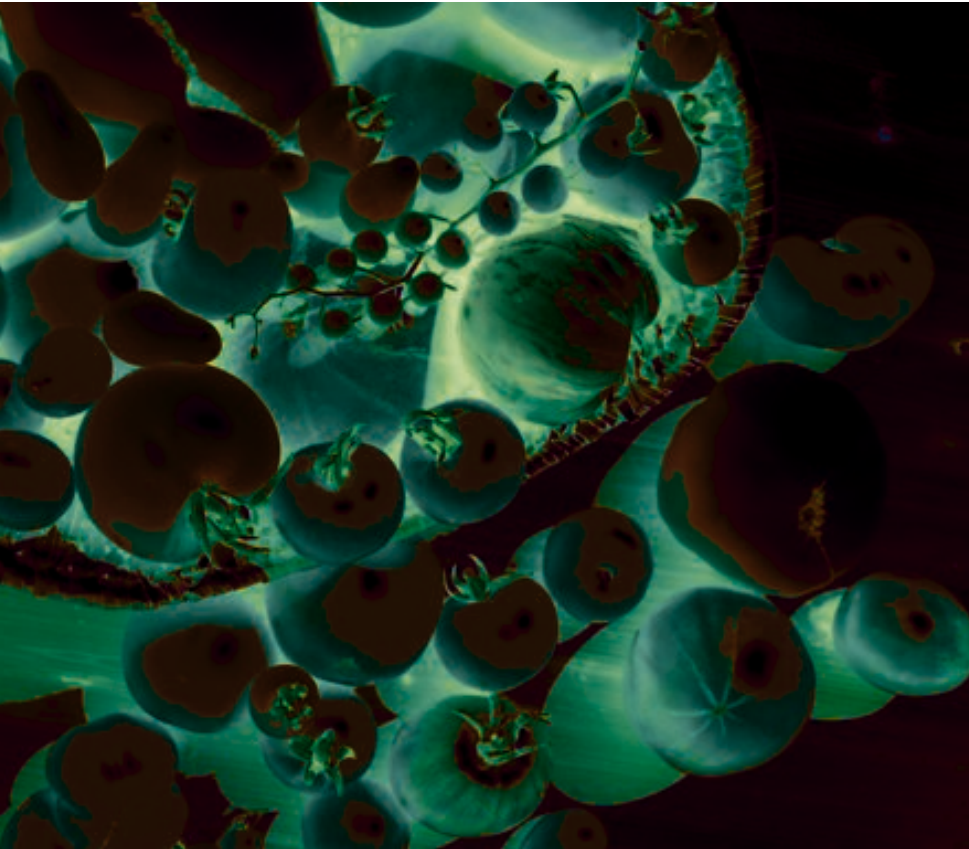
# The biodiversity perspective

A museum attraction or  
the future of food security for mankind?

Klaus Rapf, ARCHE NOAH

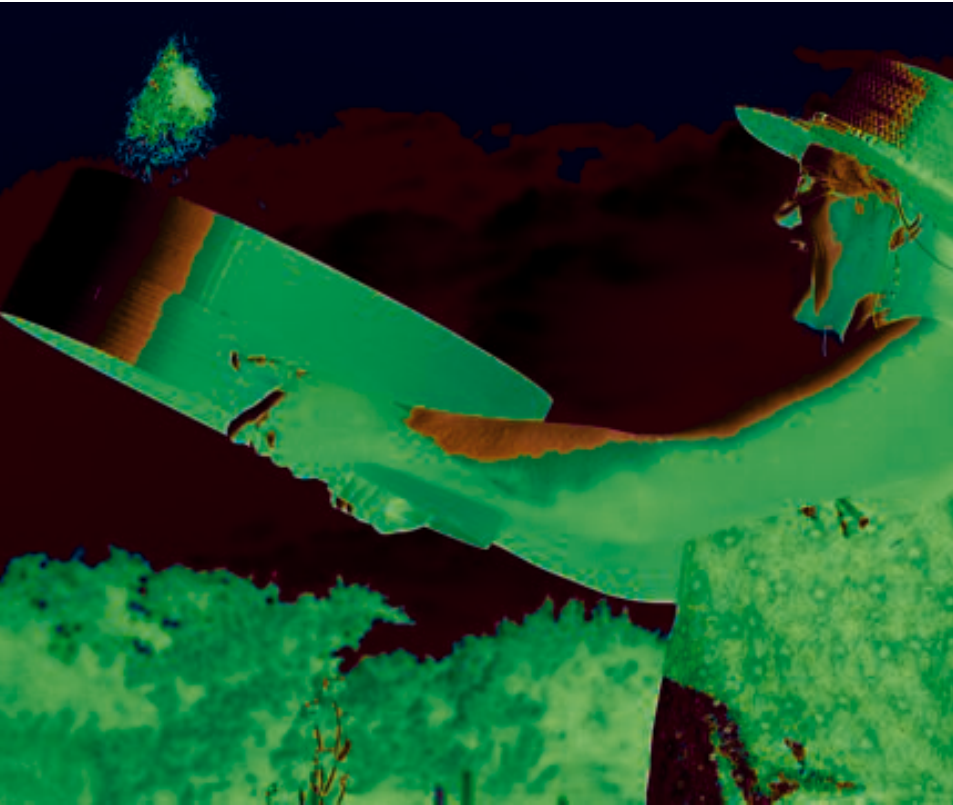


# Taste, colours and joy



- Thousands of heritage tomato varieties in the EU
- In Austria alone, about 200 apple varieties today
- Basis of traditional and regional food
- Chefs de cuisine's source of inspiration

# What is ARCHE NOAH?



- ↩ Association since 1990
- 11.000 Members
- Organic Visitor's Garden
- 6.500 accessions in our Seed Bank
- Seed Network
- Event Program
- Education

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# What is diversity?



- Genetic diversity
- Dynamic ripening time
- Dynamic shapes
- Diversity of taste
- Diversity of cooking qualities
- Adaptation to climate change
- Adaptation to pests

# Why diversity?



- Genetic diversity is our plant's life insurance – diverse plants in nature sustain without artificial “inputs” (pesticides, fertilisers, ...)
- Genetic diversity is our most sustainable life insurance

# Who are the Guardians of biodiversity?

- Seed savers
- Informal seed systems
- Rural communities
- Variety collectors
- Gene banks
- Networks of farmers



# A “variety”?



Kaibi pepper

- Older breeds and many modern as well are not “distinct, uniform and stable”, as the EU legislation requires them
- They are dynamic: They can adapt to changes in their environment (plasticity)
- “Old varieties” are actually always young: they continuously evolve

# A “variety”?



“Old red House-maize”

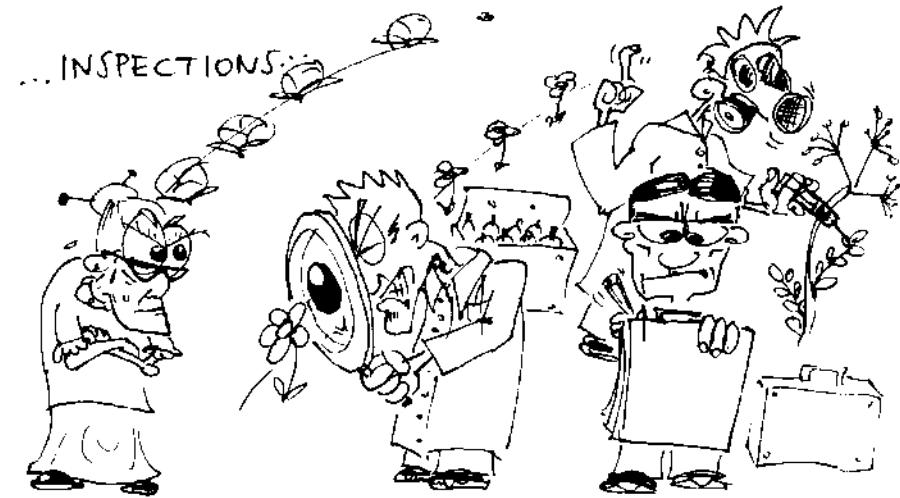
- Only a very tiny fraction of all plants on Earth can fulfil the proposed definition of “variety”
- The proposal defines “variety” as in the plant variety rights law
- Being stable and uniform is NOT a natural condition of plants

Better Regulation?

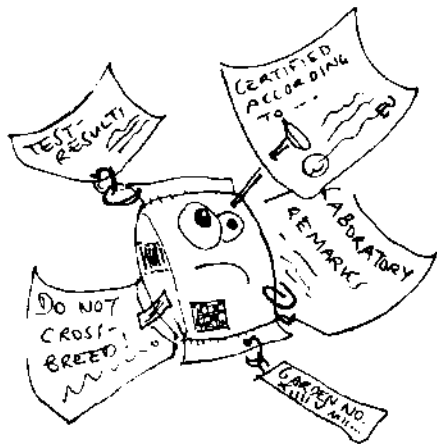


**“Business” as usual? Hysterical NGOs?**

AS IT WOULD BE WITH THE CURRENT PROPOSAL...



... LOTS OF LABELLING...



... IT ALL COMES AT A PRICE.



**The proposal tells us different...**

# Dramatic extension of scope

Directives	no. species	current range [%]
1. 66/401/EEC - fodder plants	55	0,0224%
2. 66/402/EEC - crops	24	0,0047%
3. 68/193/EEC - vine	60 <sup>1</sup>	0,0202%
4. 98/56/EC - ornamentals	7	
5. 1999/106/EC - forest	47	0,0157%
6. 2002/53/EC - catalogue	0	
7. 2002/54/EC - beet	1	0,0003%
8. 2002/55/EC - vegetables	36	0,0120%
9. 2002/56/EC - potato	1	0,0003%
10. 2002/57/EC - oil/tire	24	0,0047%
11. 2006/72/EC - vegetable plants	36	0,0120%
12. 2006/90/EC - fruits	22	0,0077%
	267 - 36 (listed twice)	

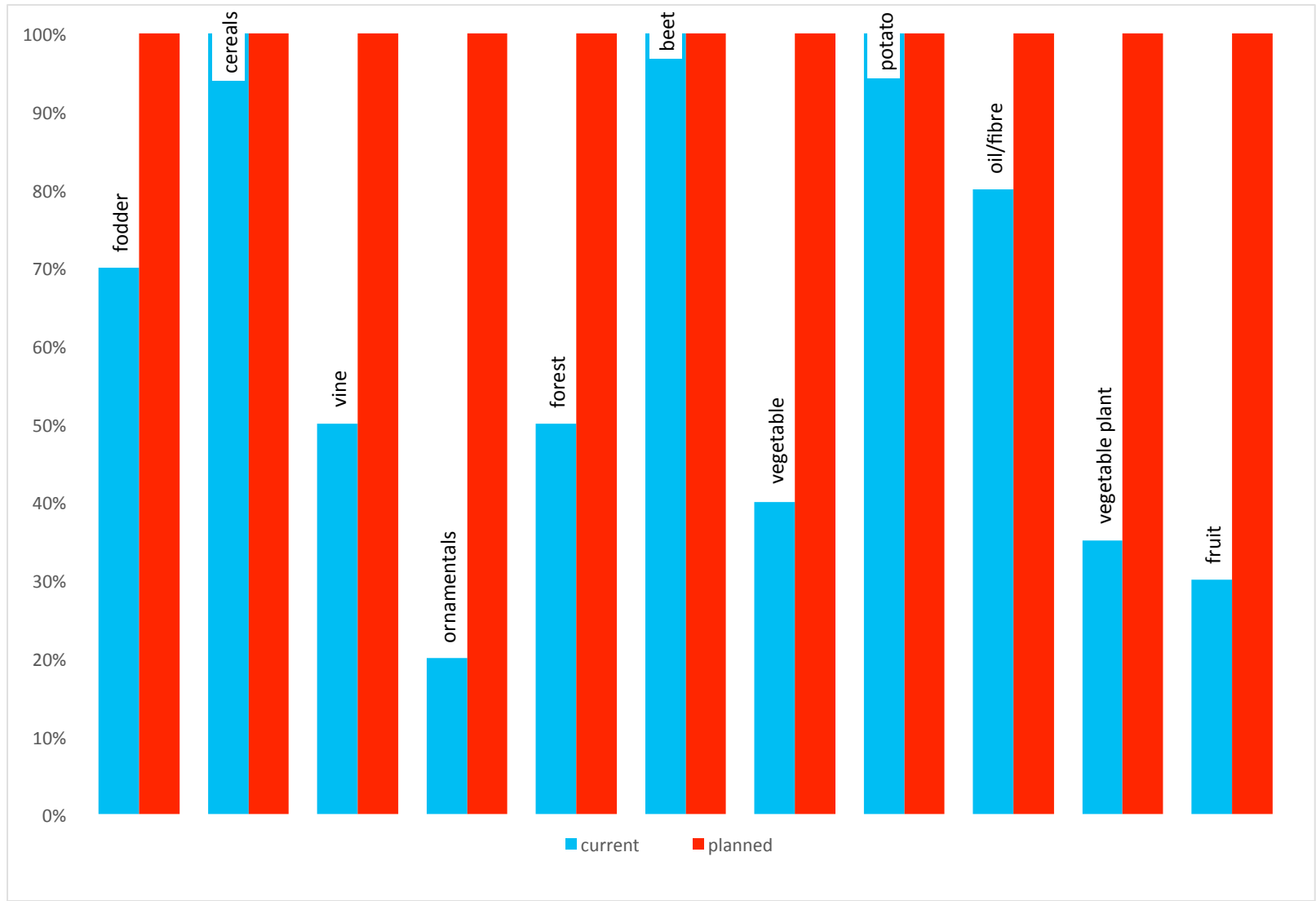
0,084 %  
251  
species

~ 6000 edible species  
~ 2,48 % regulated

298.900<sup>1</sup> accepted plant species (100%)

<sup>1</sup> The Plant List (2009) version 1. Published on the internet: <http://www.theplantlist.org/> (accessed 12th November 2013)

# Depth of regulation increases



# Further scope extensions 1

## Present system

- Making available on the market *aimed at commercial exploitation* (= commercial farming)



## New transaction types included

- Exchange
- Informal seed systems and activities due to division of labour
- All other activities not aimed at commercial exploitation

# Further scope extensions 2

## Present system

- for plant health reasons commercial companies are registered



## Massive registration planned

- Commercial companies

But also:

- Farmers
- Retailers
- Breeders
- Gardeners if exchanging with money
- Even warehouse providers

# Further scope extensions 3

## **Today, law limited to**

- Commercial entities offering seeds or other plant reproductive material

## **New actors to be included**

- Farmers
- Gardeners offering trivial quantities
- Retailers



# Further scope extensions 4

## **Present derogations**

- Pending registration
- Supply difficulties
- Reduced quality
- Emergency situations
- Local markets
- Plant genetic resources
- Small quantities

## **Proposed law**

No more derogations provided for:

- ~~Local markets~~
- ~~Plant genetic resources~~
- ~~Small quantities~~

# Not eligible



## **Not allowed for marketing**

- PRM of wild plants of Annex I species
- PRM for trials of varieties under development (participatory breeding)
- New unstable crosses

# Only one accepted standard



- Focus on increasing yields
- industrial plants and high-input-farming regarded as THE standard
- Sustainable standards not considered
- Genetic richness within a variety acts as a knock-out criterion

# Counting varieties does not help...



- The number of varieties in the EU catalogue grows
- BUT: Low intravarietal genetic diversity
- Low intervariatal genetic diversity
- Not a shopping list: Many varieties not available for purchase

# Loss of diversity: why did it happen?

- 100 years of modern plant breeding
- Since 1900, almost 75% of agricultural biodiversity were lost (FAO)

Just a coincidence?

- Structural changes in agriculture
- After WW I: restrictive seed marketing laws reduce number of actors and offers dramatically



# Barriers to fair competition



- „level-playing field“ as seen by the EC. Really?
- system of variety registration and certification of seeds prevents access to market for new actors
- Today, only 10 companies control 74% of the world's seed market

# A comparable system in Restaurants

## Registration of recipe and cooking procedure

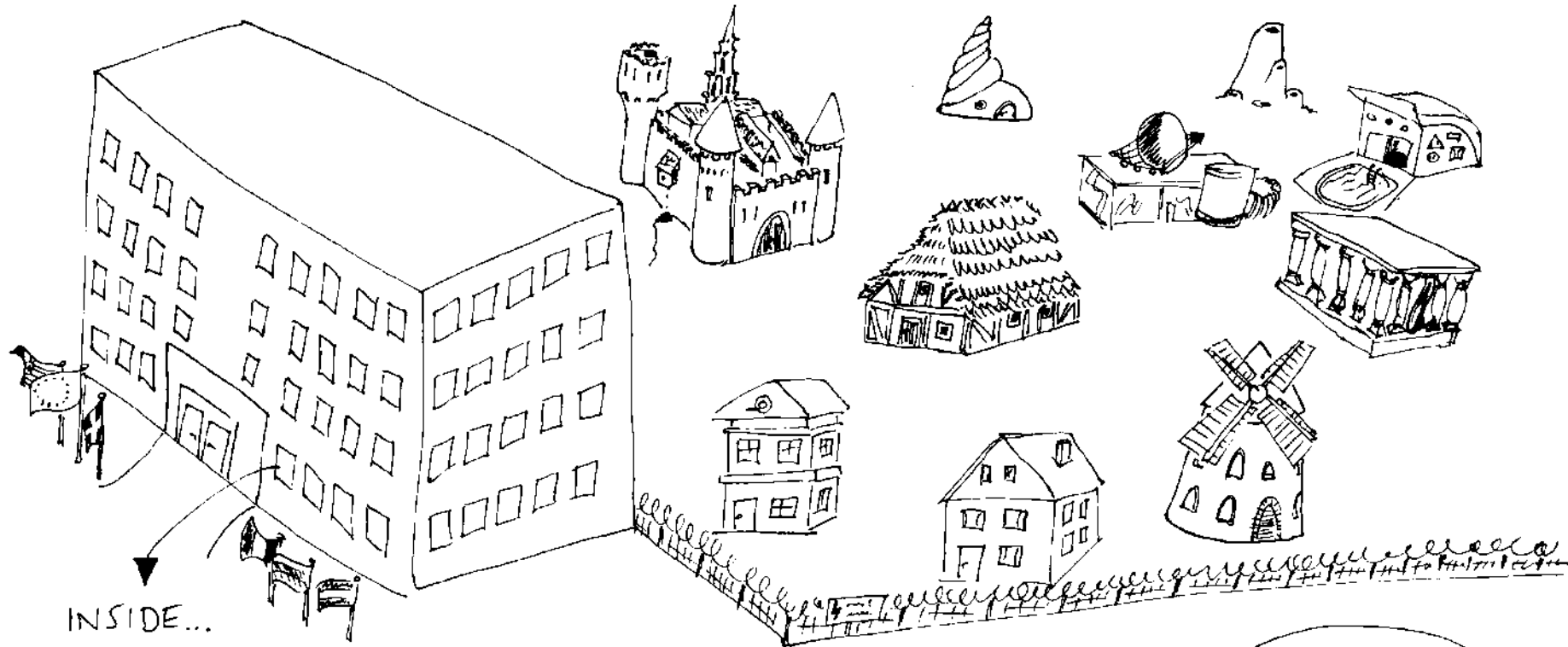
- distinguishable from any other recipe “owned” by competitors
- uniform and stable (no alterations from tested preparations allowed)



## Certification

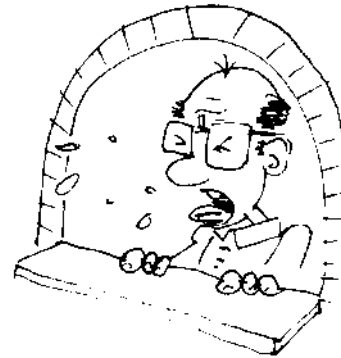
- inform authority about intention to cook the registered recipe
- ingredients sourced will be inspected and compared to the identity of the recipe
- preparation process controlled and certified

AT THE EU OFFICE FOR TEMPLATE HOUSES...



INSIDE...

MY CLIENTS  
WOULD LIKE TO  
BUILD THEIR HOUSE  
WITH A SMALL  
CHANGE IN THE  
DOO...



**"No!"** YOU NEED  
TO APPLY  
FOR ANOTHER TEMPLATE  
REGISTRATION FIRST.  
AND BRING IN YOUR  
DOOR-LABORATORY  
CERTIFICATION.  
WE ALSO NEED...

# Good for the Construction industry?

# Community Plant Variety Rights already exist

- Directive 2100/94 EC
- BUT: proposed marketing regulation would de facto create a new intellectual property right
- Plurality of maintenance breeders no longer foreseen
- Market ban for at least 5 years can be exercised by operator which no longer supplies the market
- Registration under “officially recognised description” de facto impossible

# PRM, is it food?



Onion seeds

- No connection of PRM with food or feed supply chain
- PRM is put into soil, not a mouth
- i.e. apple tree graft => after 3 years first apple to harvest
- When a plant grows from PRM, millions of biological and biochemical processes elapse before parts of the plant can be harvested for food or feed use

“Better Regulation”  
from a diversity perspective

# True and fair competition



- Competition based on a plurality of private quality schemes
  - Explore options for sustainable farming
  - Incentives for small actors
  - No fees for small and micro companies
- 
- Ensure transparency to enable informed decisions by farmers, gardeners and consumers
  - Less bureaucracy not more !
  - No regulations leading to even higher market concentration and monopolies

# Different ways to high productivity

## Industrial or Conventional

- High input
- High output
- Low farm-level income per area
- Post war paradigm



## Sustainable

- Low input
- Sufficient output
- Sufficient farm-level income per area
- Getting more and more the focus of CAP and rural development policies

# Diversity is the norm of nature



- Diversity is not a niche, but the precondition of future life
- Halt the further erosion of biodiversity to fulfil EU's international obligations
- Biodiversity must not be fenced by bureaucracy, but let alive and evolving through exchange and regular use

# Competition of standards

## Today

- Existing rules represent just one industry standard
- Demand for this standard exists
- But one size doesn't fit all
- Farmers increasingly demand alternative standards

## Future

- Shift from obligatory registration and certification to a voluntary system
- Let other standards and quality schemes based on private initiative compete
- i.e. organic, Farmers' selection, Garden Breed



# Better Options for Users



- Freedom to choose from a diversity of offers
- Availability of rare and economically not important breeds will increase
- Transparency on non-traditional breeding methods and IPRs
- Implied warranty anyway in place

# More choice for consumers



- More choice of rare and traditional plants
- Safe because for all food derived from plants the official control regime applies
- More taste and joy

About 11.000 years ago...



IF NEOLITHIC MEN HAD  
ACTED THE WAY THE EU  
WANTS TO ACT TODAY,  
WE WOULD HAVE NO  
AGRICULTURAL DIVERSITY  
AT ALL.



Thank you for your attention!

[www.arche-noah.at](http://www.arche-noah.at)

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# Pests & diseases



- In future exclusively regulated by Plant Health regulation (Amendment deadline 6.12.2013)
- Focus on quarantine pests
- Only very few seed-borne pests are listed (less than 10 species affected)