



WHY DOES NOT PORTUGAL PRODUCE MORE CHICKPEAS?

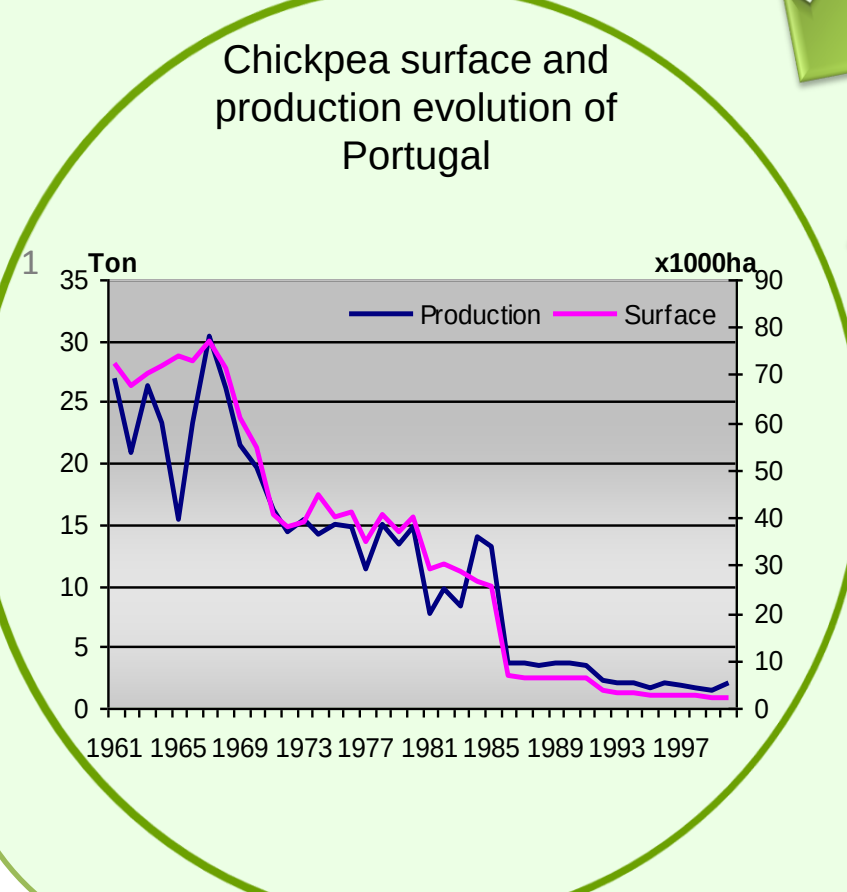
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In Portugal (INE, 2013), the production of chickpeas represents 17% of national production of grain legumes. Even though in Portugal the proportion of consumption of chickpeas/capita/ year is only 1kg and the domestic supply quantity is not enough (10%), making imports up to 71×10^3 ton per year. But why don't we grow chickpeas in Portugal?



During the nineties the problem occurred mainly due to lack or low CAP subsidies to the crop and also lower prices of imported raw material. There was also some problems on crop management and commercial varieties that were extremely susceptible to the main diseases and drought. Plant type wasn't also adapted to mechanical harvesting and farmers almost abandoned the crop.

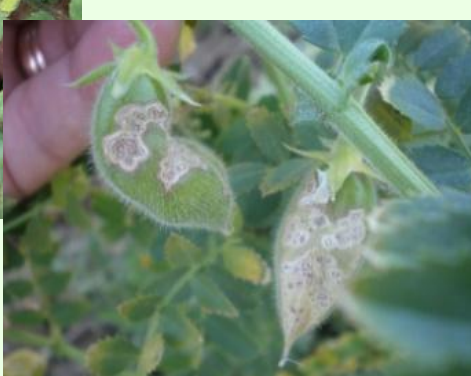
Chickpea in Portugal, was traditionally sown, in early spring and yields were normally low. Date of sowing has an extreme influence on the crop performance once it determines the environmental conditions to which the various phenological stages of the crop will be exposed. Weeds, diseases, insect pests and drought (low shoot biomass, plant height and flower production) are the most important limiting factors of yield.



Weeds



Ascochyta blight



Fusarium wilt



Leaf miner

Resolution of Problem

A **BREEDING PROGRAM** is underway at INIAV, which has led to the registration of several varieties of different species in the National Catalog of Varieties

MAIN PROBLEMS

Productive regions

- Irrigation
- Highly productive soils
- Good water storage capacity

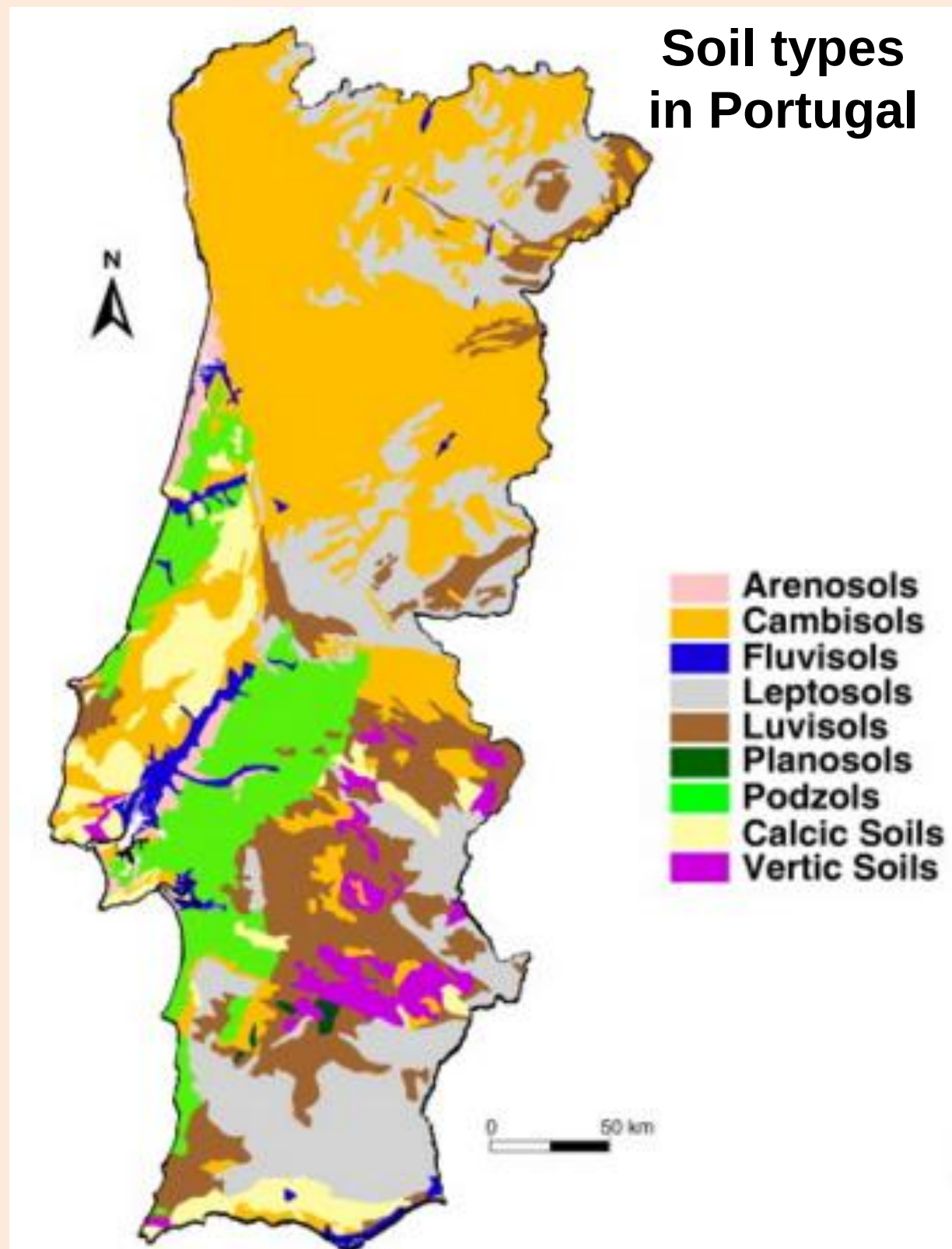
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Competitive business agriculture

Disadvantaged regions

- As a common problem:
- Limitations imposed by soil fertility (acid soils, granite rock, poor and shallow)
 - Adverse weather conditions

- Animal production system
- Depopulation of rural areas / high degree of aging



Soil types in Portugal

- Use of traditional varieties:
 - Susceptible to major diseases
 - Drought and heat stress sensitivity
 - Short plant type
 - Low seed weight
 - Low number of flowers and pods
 - Low yield
 - Use non-certified seed

- High production costs

- Lack of production incentive

- Lack of economic competitiveness
- Protein crop import policy to the detriment of domestic production interest

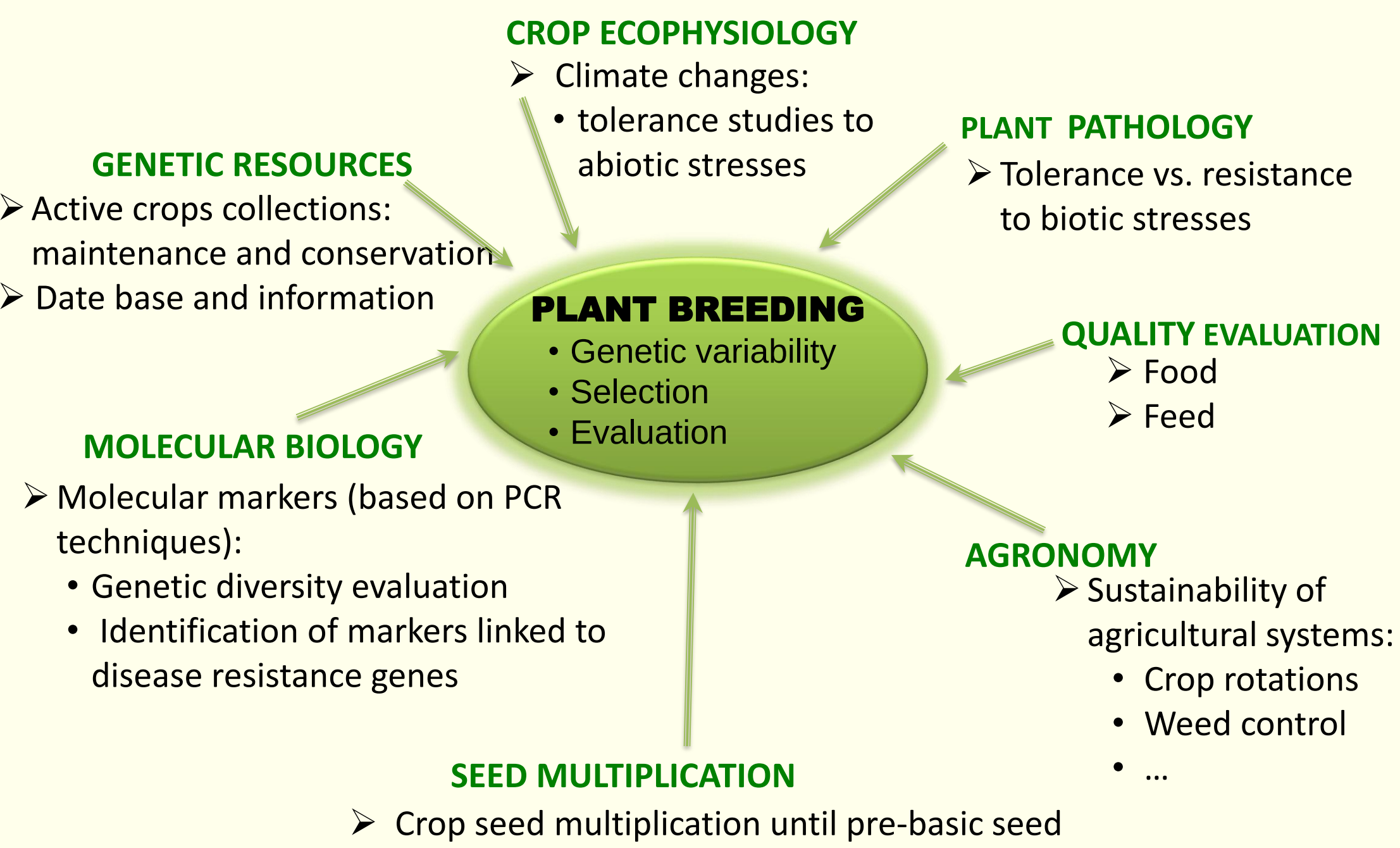
- Absence of an organized commercial chain leading to the importation of these species

- Lack of linkage between different sectors of the row

Prevent abandonment and conserve the territory through the introduction of new (selected) lines and the sustainability of biodiversity in agricultural systems

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Chickpea breeding Program in Portugal (started in 1986)



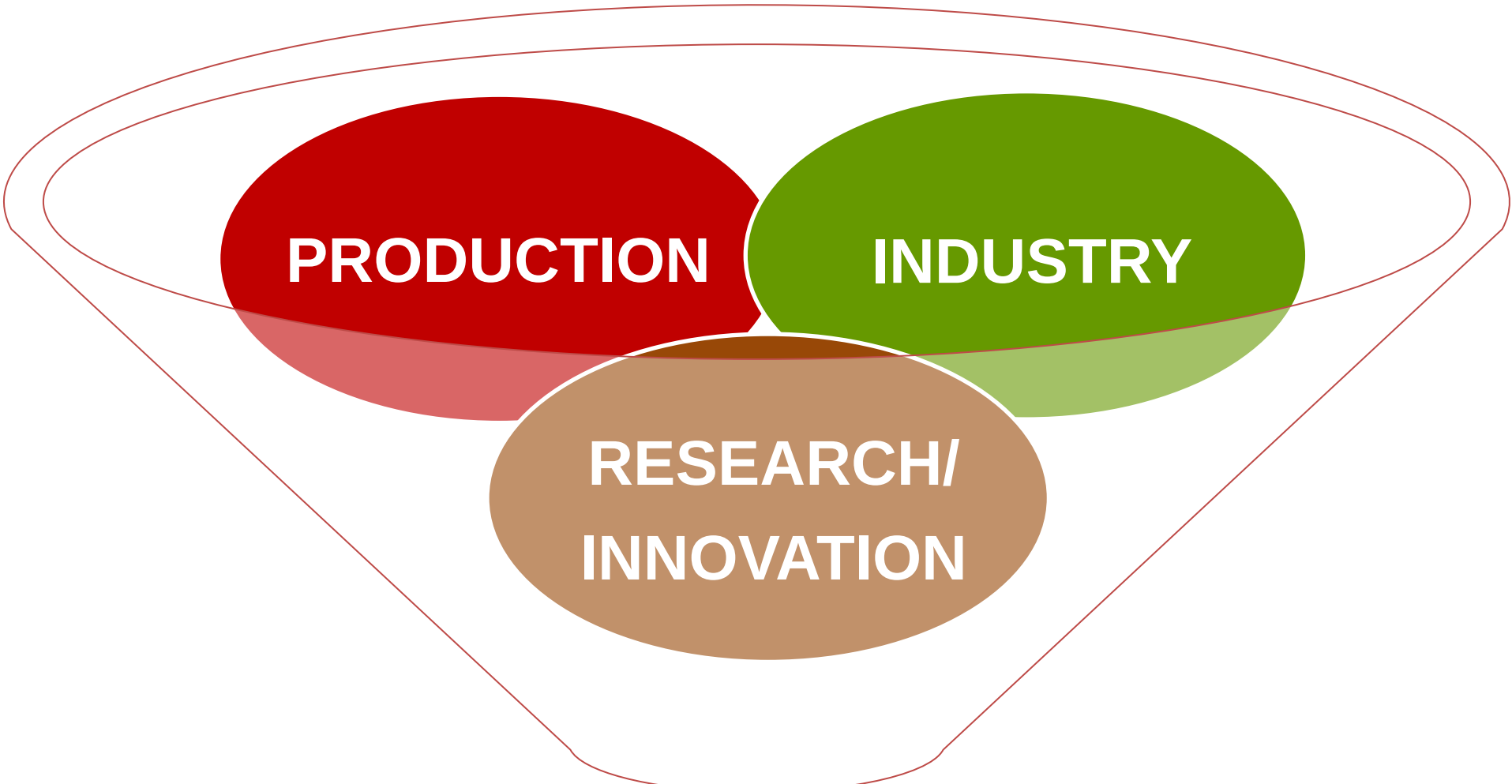
VARIETY RELEASE

Main Goals and Opportunities

- Obtaining new varieties
- Increase yield potential: yield can be increased substantially by advancing sowing date from spring to autumn, where chickpea plants have favourable atmospheric conditions. Sowing dates during March yield approximately 500 kg/ha, meanwhile sowing date during November/December improves yield up to 2500 kg/ha; the plants develop more biomass, flowers and pods.
- Diversification of farming systems
- Increase national supply
- Increased demand for protein-rich legumes from producers and industry
- Grain legumes are considered strategic species in the CAP policies

In the future PORTUGAL NEEDS.....

1. Consortium involving the three major players of legumes rich in protein



2. To establish a rural policy based on a sustainable agriculture model that guarantees food safety and quality, protection of ecosystems and respect for biodiversity based on a more territorial and less sectorial = multifunctional strategy



PRODUCTION

- Involving groups of farmers
- Production and its concentration
- Marketing of raw materials

FOOD INDUSTRY and FEED COMPONENTS

- Involving all aspects of processing canned products
- Create a logistics to import substitution Grain Legumes to feed

RESEARCH / INNOVATION

- Find answers in terms of providing new varieties with better use efficiency of natural resources
- Find new technical crop management
- Knowledge transfer to farmers and industry