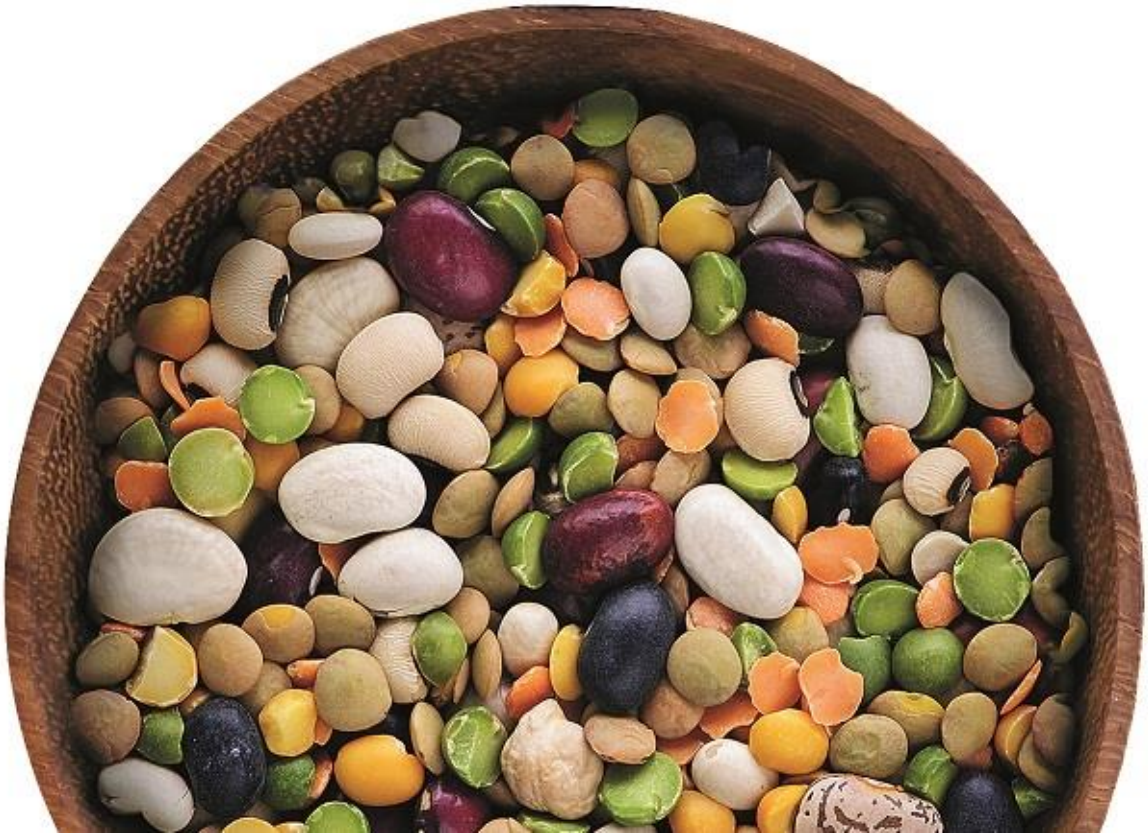
TRansition paths to sUstainable legume-based systems in Europe

Cultivation Experiments of Hungarian Legume Land Races

Date: October 1st 2018



This Project has received funding from the European Union´s Horizon 2020 research and innovation programme under grant agreement No 727973

Content

This Project has received funding from the European Union´s Horizon 2020 research and innovation programme under grant agreement No 727973

1 Summary Information

1.1 Partner Summary

SOP Code	EU_TRUE_SOP_038
TRUE Partner Acronym	AGKU
Primary Author	KRÁLL, A. (*krall@agrikulti.hu*)
Other Authors	BERTÉNYI, G; PAPP, O.
Linked Reference and Hyperlink (if available)	*Not Applicable*
Associated files to use with the SOP [and function]	*Not Applicable*

This Project has received funding from the European Union´s Horizon 2020 research and innovation programme under grant agreement No 727973

1.2 SOP Summary

Title

Cultivation experiments of Hungarian Legume Land Races

Brief description

The aim of the experiment to test legume land races at different small-scale farming locations either in organic and fully chemical-free cultivation for 3 years. Cultivation technology is mostly standardised. Data is gathered following a specially designed protocol based on the on-farm protocol of the Hungarian Institute for Organic Agriculture (ÖMKI).

The technological description and protocol consists of three parts:

1. **Species-specific cultivation technology proposal**
2. **Protocol (template) for observation data regarding organic, small-scale cultivation**
3. **Protocol (template) for observation data regarding potential use**

This Project has received funding from the European Union´s Horizon 2020 research and innovation programme under grant agreement No 727973

2 Protocol Steps

Designing and conducting organic cultivation experiments of legume land races

1. **Assessment of agro-ecological conditions of the cultivation location.**
   To describe the specific agro-ecological parameters of the plot(s) in question (soil, water, temperature, *etc*.)

2. **Planting legume land races using technological descriptions**
   Collect facts and figures of plantation: timing, soil temperature, distance of seed(s), support system if needed, preparation for most frequent possible pests and diseases (pheromone-traps, *etc*.)

3. **Repeated data gathering on cultivation process (general observations during cultivation)**
   Objective observation data:
   - Planting (previous crop, seed distance, fertiliser)
   - Germination (timing, density, frequency of sprouts)
   - Used technology (watering, other)
   - Flowering (start-70%-end)
   - Pests and diseases observed
   - Plant physiognomy (height, behaviour)
   - Other observations

   Subjective observation data:
   - How much are you generally satisfied with the crop (as a producer)?
   - Would you plant it again (having the experiment completed)?

4. **Data gathering with a focus on crops (different stages) and their possible use.**
   Green pods
   - Appearance of first pods (timing)
   - Appearance of all (most) pods
   - Physiognomy of pods – colour, length, height, width, other
   - Timing of harvest
   - Yield

   Fresh and/or dry beans
   - Shape of seeds
   - Colour/pattern of seeds

This Project has received funding from the European Union´s Horizon 2020 research and innovation programme under grant agreement No 727973

- Surface of seeds
- Size
- Weight (2*50 seeds' average)
- Yield (5 plants' average)
- Timing of harvest

This Project has received funding from the European Union´s Horizon 2020
research and innovation programme under grant agreement No 727973

3 Linked SOPs

Not Applicable

4 Disclaimer

The information presented here has been thoroughly researched and is believed to be accurate and correct. However, the authors cannot be held legally responsible for any errors. There are no warranties, expressed or implied, made with respect to the information provided. The authors will not be liable for any direct, indirect, special, incidental or consequential damages arising out of the use or inability to use the content of this publication.

5 Copyright

6 Citation

Please cite this report as follows:

Králl, A. (2018). Standard Operating Procedure 38: Cultivation experiments of Hungarian Legume Land Races. Developed by the EU-H2020 project TRUE ('Transition paths to sustainable legume-based systems in Europe'), funded by the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement Number 727973.