

# Introducing true potato seed to Myanmar

Field trials, market preferences & legal requirements

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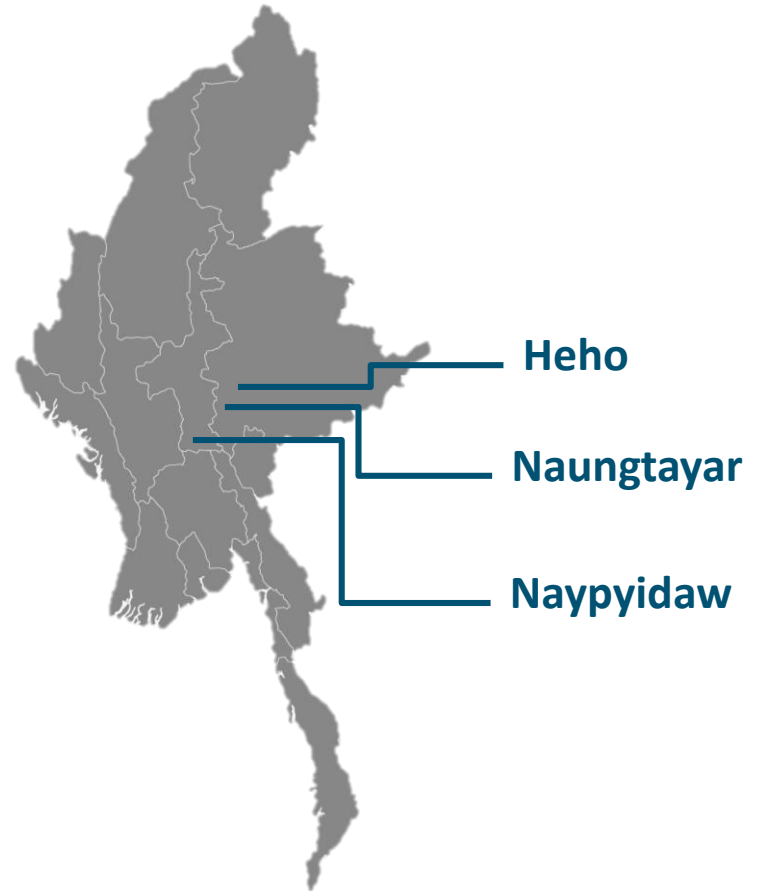
10-12-2020



# Introduction

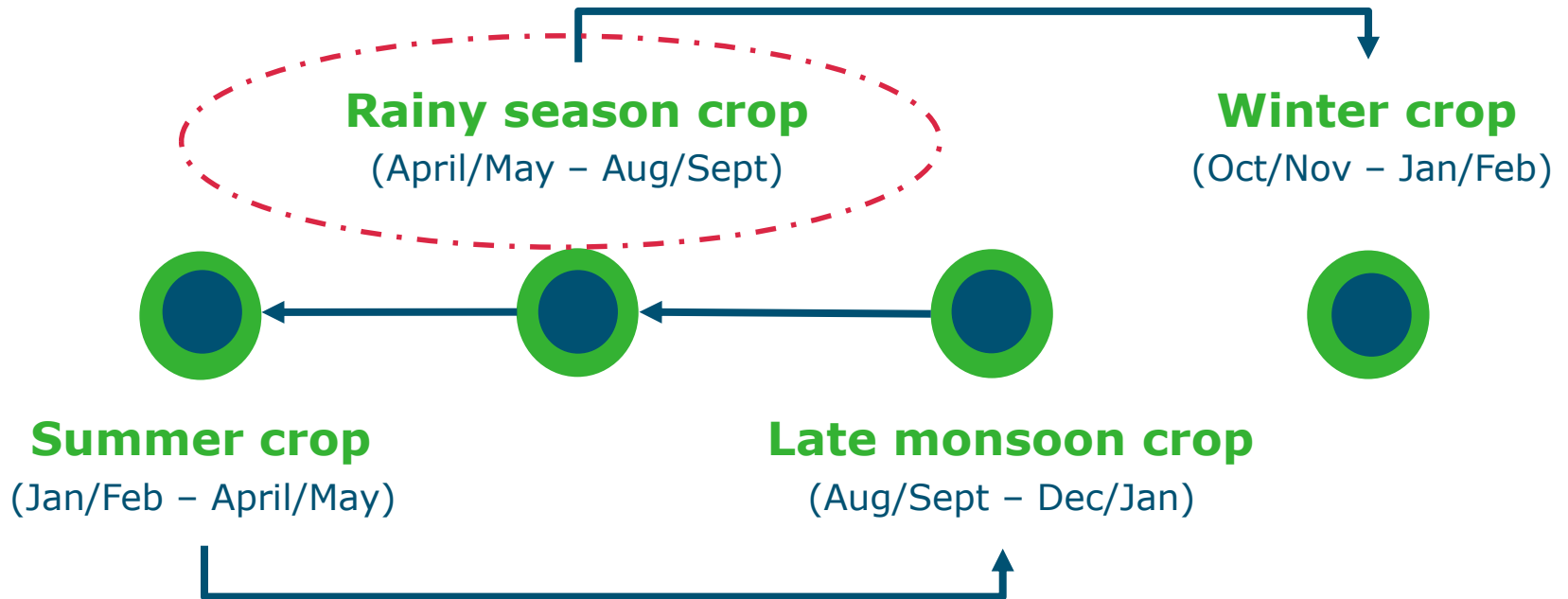
Main objective: assess the technical, commercial and legal feasibility for introducing TPS to Myanmar

- Background: Myanmar is a large producer of potatoes in Southeast Asia: 40,000 hectares, 600,000 tons
- Current average yield: 15 t/ha
- There is a lack of clean planting material with current sources of seed potatoes being heavily infested
- There is already some export of Dutch seed potatoes to Myanmar; interest for cheaper and less bulky true potato seed



# Use of seed potatoes per season

Potato seed tuber flow (seed system – informal)



From: Anton Haverkort, 2013: Rapid appraisal of the Myanmar Potato Industry - Opportunities for seed production]

# Field trials – Main results

- Field trials organized at the Horticulture Farm in Heho between July and December (Department of Agriculture, Myanmar Agric. Ministry, MOALI)
- Optimization of germination by improving temperature range
- With proper nursery management, germination rate >80%
- Some issues with late blight / phytophthora in production fields (also a cause of exceptionally wet post-monsoon growing season)
- Yields can be improved still with longer production duration (4, 5 months) and more phytophthora resistant varieties



# Farmer Feedback – Field Trials

## Main advantages:

- Lower production and transport costs
- TPS is always available
- Clean material: Absence of seedborne diseases

## Main disadvantages:

- High labour req. for seedlings and transplanting
- Current yield and tuber size is too low

## Best form for sales:

- Seedlings (50%)
- Pelleted/coated seed (25%)
- Mini-tuber (second generation) (12,5%)
- 'Naked' seed (12,5%)



[From: Interviews with eight farmers during field days at Heho on 1st December 2020]



# Market and farmer preferences

- Potatoes produced in Myanmar are mainly used for fresh consumption and small-scale potato chips / crisps production
- Very little market segmentation; varieties are often mixed
- Tuber size: the bigger the better. Consumer quality awareness only concerns tuber size
- Farmers are looking for disease resistant varieties and clean planting material
- Problems with *Phytophthora infestans*, *Fusarium* and *Ralstonia*
- Farmers looking for a robust potato that can stand a bit of damage (low skin curing index)

[From: Pronk, 2016, Baseline potato cultivation in Myanmar and Anton Haverkort, 2013: Rapid appraisal of the Myanmar Potato Industry - Opportunities for seed production]



Retail at open market in Yangon



Fresh potato sale at CAPITAL supermarket in Yangon

- Need registered seed company (distributor) that can do the importing process
- Distributor needs to do document registration for VCU, potato is exempted from three trial locations
- After approval by TSC and NSC varieties can be imported
- For the phytosanitary certificate the PPD only needs the pest list of the crop cultivation period / history
- This list can also be provided by Dutch seed companies themselves
- MOALI PVP Office can accept any application for PBR and they can use test result from other PVP offices
- There is close collaboration between MOALI PVP Office & Naktuinbouw

[From: Personal communication]

[From: Personal communication with Daw San Kyi, Seed Law Unit,  
MOALI & Dr. Papa Win, PVP Office]

# Business case

- Preferred form is seedling or mini-tuber ensuring high germination and strong start of young plant
- Start collaboration with distributor and young plant nursery to import and promote TPS (shortlist developed)
- Do a few more rounds of trials in order to develop a tailor-made production guide, including guidelines for seedling production, best planting and harvesting times, crop management
- Organize demos and field days to popularize the varieties; and build loyal customer base that become TPS ambassadors





# Follow-up steps

- Organize one / two more trials in winter / spring (December-May) – with more phytophthora resistant varieties and longer production cycle (4-4,5 months)
- Explore if an impact cluster is possible, working together with:
  - Heho Horticulture Centre
  - Freshlink Limited (Myanmar):
  - Group of progressive Myanmar potato farmers
  - Bejo & Solynta: seeds and expertise
  - WUR: PPO/WCDI – training & trials
- Focus: registration and imports, seedling & mini-tuber production, demos & training
- Link to Myanmar Seed Valley initiative

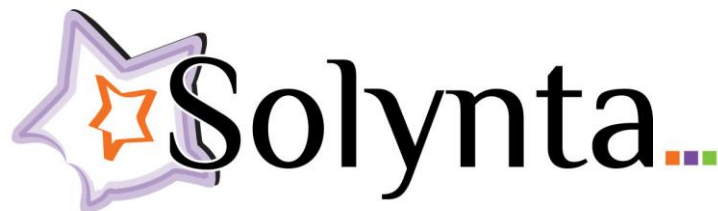


# Solynta: Reflections on Topsector project

## Goals:

- Import Hybrid True Potato Seed (HTPS)
- Germinate and grow seedlings in local conditions
- Transplant seedlings and grow a crop from HTPS
- Collect yield and quality data on local HTPS crop
- Define hybrid registration requirements
- Understand distribution options

All goals have been or will be met by the end of the growing season. Based on results Solynta will take a decision on next steps.



# Bejo: Reflections on Topsector project

## Goals:

- Testing Oliver in local climate conditions
- Market access and importation of True Potato Seed
- Feedback from farmers, nurseries.
- Distribution model
- First hybrid comparison to local clonal potato production

Bejo considers to work out a strategy for market approach Myanmar as we do with other vegetable crops.



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