AGRONOMIST SEDP UPDATE

Introduction

- Introduce myself and the role of an agronomist
- Talk about Agronomys role within the SEPD
- Answer any questions

Introduction – Ted Whitton

- Arrived end of Feb 2019
- Back in the UK 10 weeks for paternity leave
- Returned with family end of June.

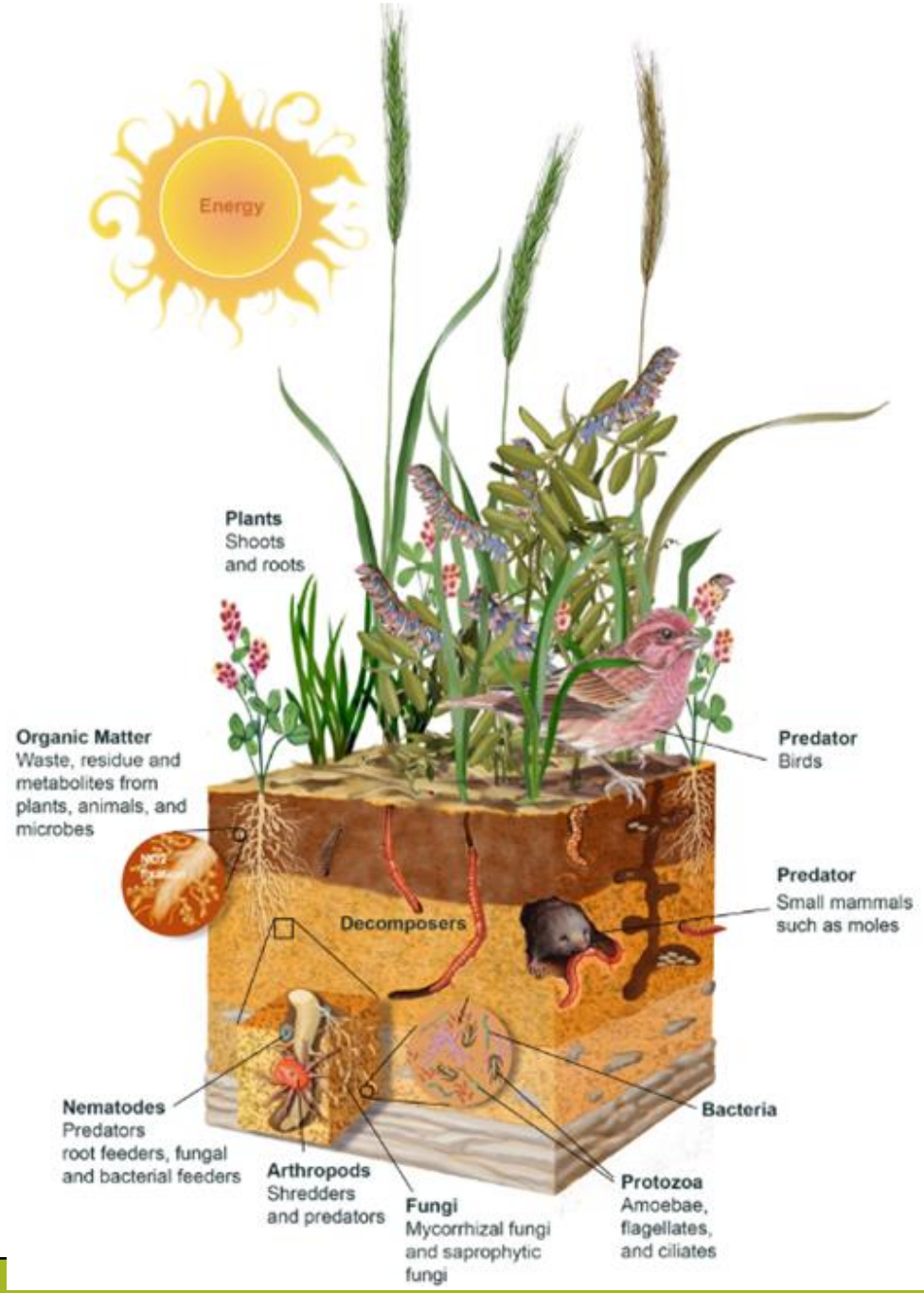
- Previously:
  - Farm Manager on an arable farm in the UK
  - Little experience in Sub-tropical agronomy
  - But lots of experience in managing a farming business and economics of farming.

What is an Agronomist?

- A crop advisor:
  - Assesses the health of crops and soil
  - Aims to improve:
    - The productivity of the crop
    - The quality of the crop
    - The potential margin achievable
    - The efficiency of the crop
  - Aims to reduce
    - The impact on the natural environment
    - The costs of production
    - Waste

The Day Job

- Work alongside farmer support team
- Research
- Reports and Policies
- Farmer visits
- Manage trial plot
- Crop scouting
- Develop training
- Develop and update guidelines and pesticide database
- Input "procurement"
- Develop business plans and budgets



Goal of SEDP & Agronomy

- **Reduce the cost of produce on the shelves**
  - Fresh veg more available to more people
    - Health, Wealth, Wellbeing
  - Import substitution
  - Excess for export and processing
  - Increased margin for retailers – increase investment, less waste
  - Increased margin for farmers – new entrants, increase investment

  } Reduce shortages

- **Increase range of produce available**
- **Protect and improve the environment**

SEDP and Agronomy

- **Core:**
  - **Use an Agronomist to guide improved soils and crop management to improve land and crop productivity**
  - **Agronomist to provide training**

Improved Soil Management and Productivity

Item	Result	Action Taken
pH (acid)	Acid soils reduce potential yield by restricting water and nutrient uptake	• Liming encouraged. • Worked with retailer to import best value lime product
Compaction	Hard layers in soil restrict drainage and root growth	• Found "subsoiler" on the Island • trialled • recommended
Organic matter	Important for soil health	• Work with EMD to produce compost. • Trials with conservation agriculture. • Encourage mixed farming (leases restriction)
Soil Analysis	Knowing soil nutrient status is important for tracking its health.	• Samples taken on request and sampled for pH and some nutrients • Samples taken to mainland for analysis • Set up

Listening to peoples experiences and asking questions about past practice has proved a treasure trove.

Improved Crop Management and Productivity

Item	Effect	Action taken
Mechanisation	• Labour intensive • reduced labour force (unappealing to next gen.) • Timeliness and quality	• Designed, built and used potato planter form on Island resources • Advise producers on availability, cost, benefits of mechanisation
Fertiliser	• Reduced rate being used • Costs of production higher than necessary	• Sourced and imported through retailer fertiliser c.160% cheaper than was available • Created recommendations for range of crops
Availability of PPPs	• Pests and disease control not effective • Some outdated products now banned	• Sourced and imported through retailer and ANRD to provide suitable range of PPP. • Advising producers on product selection and efficacy
New practice and crops	• Requirement to demonstrate novel ideas to farmers	• Established a trail/demo plot to test out new concepts • Removes risk trying untested systems from farmers

Using Saint Helenian skills and existing equiment to produce revolutionary equipment

Training

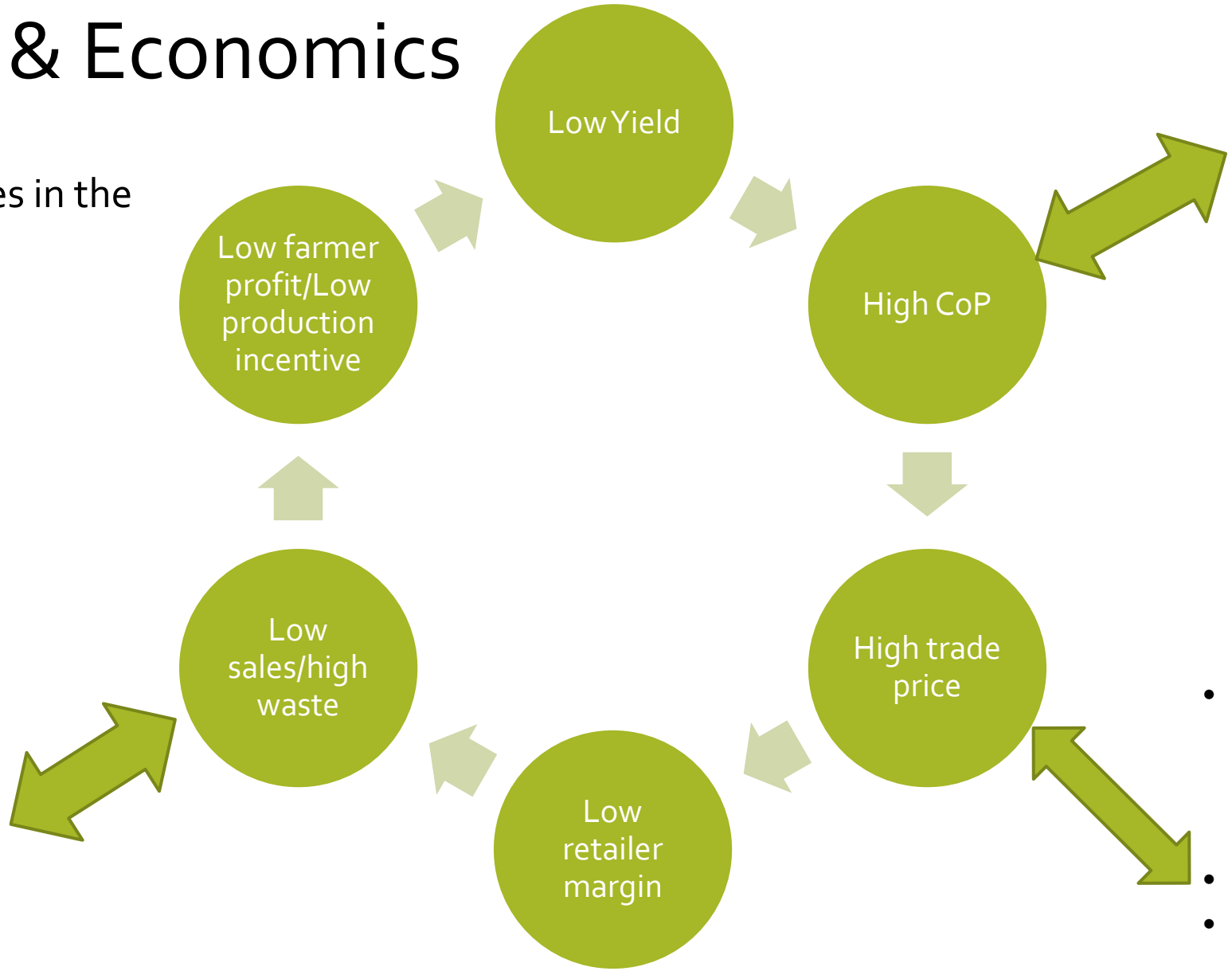
Training	Summary	Comments
Growing Healthy Potatoes	• Rotation • P&D • Record keeping • PPP • Cultural Control	• Provided lunch to encourage participants • Only 6 attendees mostly small growers) • Feedback good
Integrated Pest Management in Poly tunnels	• Principals of IPM • Basics of tunnels • Crop Scouting • PPP • Cultural control	• Provided lunch to encourage participants • Well attended • Feedback good
Planned – Farm business Management	• Farm as a Business • Cost of labour • Gross margins • Input response curves	• Producers to realise the potential in their farm to make money. • Reduce costs of production
Ongoing – informal, individual advice and training	• Much "training" takes place in field discussions • Informal but often effective and low commitment from farmer	

Ongoing projects

- **Sterile Insect Technique Feasibility and Medfly control**
  - **Eradication of Medfly to revolutionise fruit production**
- **Importing high quality and safe plant material**
  - **Fruit trees, strawberries etc.**
- **Potato Development Policy**
  - **Increase potato production**
- **Pepper Production**
  - **Encourage commercial approach to pepper production. Increase domestic production**
- **Conservation Agriculture**
  - **Trial, demonstrate and encourage CA to protect soils for the long term.**
- **Bees and Honey**
  - **Working to develop honey production**

Agronomy & Economics

- The vicious circle:
  - This puts obstacles in the chain

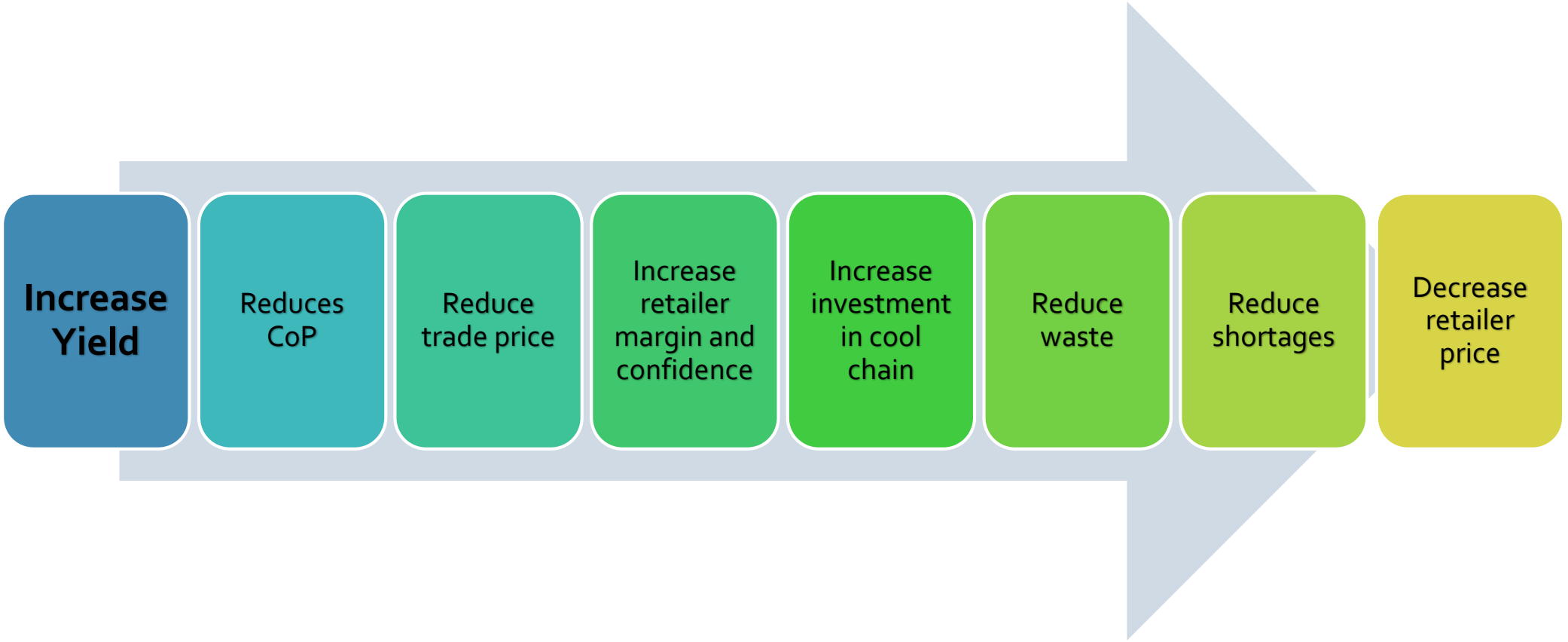


- High input costs
- Lack of training
- Poor quality inputs

- Poor cool chain
- No long term storage
- No processing
- Poor summer production

- Consumer pressure to supply potatoes leads to imports
- Imports set price
- Retailers need to sell pre-paid imports

Agronomy's role in disrupting the vicious circle



Final Thoughts

- **Market research**
  - **What do people really want?**
  - **Help farmers decide what to grow when.**
  - **Inform new business (strawberries, mushrooms)**
- **Better data and statistics**
  - **Accurate production data combined with spatial data**
  - **Inform CoP calculation, produce accurate & agile pricing etc.**
- **Accessibility of technology**
  - **Mobile technology (and information) is revolutionising farming around the world**
  - **Could help with the above**
  - **New entrants**

Summary

- Heaps of potential for agriculture on St Helena
- Because of import substitution and production gap there is a real potential for everyone to be better off
- Production gap will take time, maybe generational change
- There are entrepreneurs operating in the Ag sector