

Elveden Farms Ltd

Andrew Francis, Senior Farms Manager



UK Onion & Carrot Conference,
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Introduction to Elveden Estate



Elveden Retail

- The Elveden Courtyard comprises
 - Restaurant
 - Food shop and butchery
 - Home and garden shops
 - LEAF guided nature trail and dog walk
 - Pub
 - Post Office



Forestry



- 1200 hectares of Woodland
 - Producing 4000t of timber
 - Supporting many species of birds including the rare Woodlarks and Nightjars
- No. 1 display tree supplier in the UK
- Elveden has grown Christmas trees for over 40 years
- In 2016 we supplied over 1,000 display trees, up to 75ft high
- First producer to become UKWAS certified by the Soil Association
- From our own plantations and by working with the Forestry Commission we have access to the best display trees in the country



Hedges; innovative landscaping



- Elveden were pioneers of the first instant hedges
- Designers now have a truly instant hedge giving immediate maturity to gardens.
- Up to 2m high and in lengths of up to 10m.
- Species available:
 - Green Beech and Copper Beech
 - Hornbeam
 - Holly
 - Laurel
 - Box
 - Yew
 - Cherry



Farming

- Elveden's farmland extends to over 4,900ha.
- The main crops are:
 - Onions, Potatoes, Carrots, Parsnips , Sugar Beet
 - Cereals used as a break crop; rye, wheat and barley
- Selling to supermarkets and manufacturers nationwide, for leading product brands, including French fries, potato crisps own brand baby potatoes and rye crisp bread.



Specialist Crop Marketing

- Our two main crops, onions and potatoes, are marketed through specialist partner businesses.
- Elveden Produce market all onions and Garden of Elveden market the potatoes. They are selling a range of branded products.
- The balance of all our crops are marketed through the Farms Office.



Challenges and Opportunities?!

- Real time measurement
- Irrigation delivery systems
- Increased water infiltration
- Understanding the irrigation
- Constant monitoring
- Control or prevention
- Simple, but fast information software
- Imagery support to identify crops
- Selective weeding
- Better botanical knowledge
- Increased nutritional value
- Smart regulation



al growth profiles

recording and analytical

rowth stage, crop diseases of veg

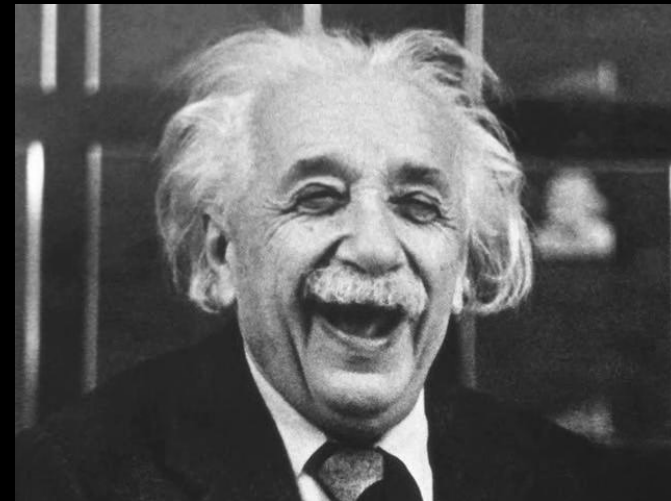


ELVEDEN

Technology and Innovation

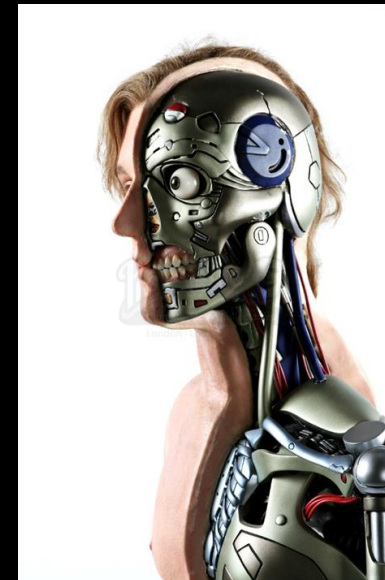
What does it mean?

- Technology
 - The application of scientific knowledge for practical purposes, especially in industry.
 - Machinery and devices developed from scientific knowledge.
 - The branch of knowledge dealing with engineering or applied sciences.
- Innovation
 - A new method, idea or product.



Technology Gaps?

- Communication between machinery working in the fields and smart platforms to interrogate, summarise, cost and display rapidly.
- Soil and plant based probes and diagnostics to measure where in the soil, or plant, soluble nutrients are in real time
- Imagery with the ability to measure weed numbers, species, crop growth stage and canopy biomass.
- Ability to measure and quantify soil biology.
- Ability to quantify improved soil organic matter.
- Organic or inorganic soil aeration.
- Ability to measure final yield and bulb size on the move.



Will we still be farmers?!

- What are our industry targets in the next 5 years?
- Will we be growing food and fuel?
- Could we be growing broad acre medicines?
- Who will drive this policy?



Cross sector learning at Elveden



Run Off Trials



Findings from introducing cover crops

- Appears to be more potato volunteers surviving the non destoned plots (more pesticides use in crop)
- We had to use glyphosate in the crop pre-emergence to control the volunteer grasses.
- Introducing green cover crops over winter decreased efficiency of soil engaging operations by 60%. Cost was increased by £175/ha and our CO2 equivalent footprint went up by 26%
- If we removed destoning to what extent would the soil biology improve?
- Would not destoning negatively impact the storability and saleable quality of the crop (what's the financial impact of this).
- Risk versus potential saving? Cost reduction is only 4% of the gross value of crop.
- To offset the negative impact on the machine output of cover crop it would need to be destroyed in advance of land preparation.
- Could novel harvesting techniques be designed to lift root veg without lifting a wide soil profile

Tomorrow's influencers; Engagement



The Consumer Engagement



Team Communication

- Inductions
- Meetings
- Newsletters
- Special interest tours



Thank You



Twitter: @elvedenfarmer

