LEAF Marque and environmental responsibility at G’s

Claire Donovan ~ Technical Director, G’s Fresh
Organisation and planning!

• G’s Business Intro

• Key Projects
  – Water - Drip / Sub Irrigation
  – Icecam / AgriEye/LED
  – May Farm & Environmental
  – Birds & Wildlife
  – Community

• Summary
Established 1952

Guy Shropshire
Established 1952

- £500m turnover
- 7,000 employees
- 24 farmers and growers
- 13,142 hectares
- c. £20m invested p.a.
- Supplying all major UK retailers
- Supplying major supermarkets across the EU and USA
The G’s Group

- A group of marketing led family farming businesses
- Growing across 13,142 hectares Europe & Africa

- Dedicated to quality and service; underpinned by strong values

**UK**
6,201 ha

**Spain**
5,853 ha

**Czech**
330ha

**Senegal**
384 ha

**Poland**
374 ha
Full Vertical Integration

Crop Establishment & Plant Raising

Farming

Further Process & Packing

Sales & Marketing
Crop Portfolio

- Lettuce
- Baby Leaf
- Celery
- Radish
- Beetroot
- Mushrooms
- Onions
- Garlic
- Spring Onions
- Brassicas
- Asparagus & Legumes
- Melons
- Tomatoes
- Citrus
- Flowers
G’s UK Growing Base

- **Lancashire** (Strategic Partners)
  - Celery
  - Iceberg
- **Lincolnshire**
  - Organic Veg
- **Shropshire**
  - Spring Onions
  - Organic Beetroot
- **Warwickshire**
  - Spring Onions
  - Asparagus
  - Legumes
- **Gloucestershire**
  - Mushrooms
- **Dorset**
  - Mushrooms
- **Norfolk**
  - Onions
  - Celery
  - Iceberg, Romaine
  - Radish
- **Norfolk Coast**
  - Baby Leaf
  - Celery
  - Iceberg, Romaine, Gem
  - Onions
- **Cambridgeshire**
  - Celery, Fenland Celery
  - Iceberg, Romaine, Gem
  - Mushrooms
  - Onions
  - Beetroot
- **Suffolk**
  - Onions
- **Kent**
  - Spring Onions
- **Sussex**
  - Iceberg
  - Baby Leaf
  - Romaine

---

**Trust** | **Efficiency** | **Quality** | **Expertise** | **Can do**
West Africa Farms ~ Senegal
G’s Poland
Innovation & Investment - £196m over 10 years

Investment in the UK business is replicated in Spain & Czech Republic

Laser Land Levelling

24 Row Iceberg Planter

Reservoir Development

Mushroom Farm & AD Plant

Infield Rig Packing

Plant Raising

Reservoir Development

90 ha of state-of-the-art Greenhouses
Cambs Farms
Environmental Management

- Demonstration Farm (2000)
- National Award Farm (2006)
LEAF and G’s

Our vision is for a world where we are farming, eating and living sustainably.

To supply quality fresh produce that delights our customers every day.

Our mission is to inspire and enable sustainable farming that is prosperous, enriches the environment and engages local communities.

To be recognised as outstanding, market-led growers and suppliers of sustainable, healthy fresh produce, and to be at the forefront of the industry in everything we do.
Water use, drip irrigation and sub irrigation
Water use, drip irrigation and sub irrigation
Vision
To be the market leader for innovation in our core products offering high quality healthy, tasty, nutritious food with a point of difference for our customers and consumers

Mission
To drive quality, efficiency and sustainability inspiring trust with our customers and consumers through the application of leading edge science and technology using industry partners, expertise & knowledge
IceCAM Nursery Sowing Amendments

Sowing begins

- 300k Extra Sowing due to Spain finishing early
- 500k Sowing pushed back due to rising Heat Units
- 500k Sowing pulled forward due to return to average
- 500k Sowing pulled forward due return to average
IceCAM Optimisation Suite (OS) – Smith Institute
Yield Forecasting & Harvest Planning

Determine the **number of plants established after transplanting** (>98% accuracy)

Measure size of individual plants and assess **size range**

**Outputs**
- Deliver lettuce and celery establishment KPIs on weekly basis
- Correlating plant size with product specifications

*Iceberg at Bank Farm 3 over a ‘roddon’ (old waterway). Area of interest in red. (G’s Growers UK 2017)*

*Iceberg population with classes based on pixel sizes.*
Crop Intelligence using Remote Sensing

Manned aircraft
Spectrum Aviation

Unmanned Aerial Vehicles
Hemav

Satellites
Environment Systems

Georeferenced multispectral imagery (3cm/pixel), being able to locate individual plants

Real colour image (right) and Vegetation Map (red/green left) of an iceberg crop at ‘La Raposa 01’ (Cullar- G’s Growers Spain – 2017).
Crop Scouting Tool

Other uses of vegetation maps:

- Crop scouting
- Wind damage
- Poor planting /drilling
- Weed patches
- Diseases
- Pest damage
- Compaction issues
- Water-logging
- Over spraying
- Compost amendments
- Non-destructive trials assessments (i.e. starter fertiliser)
Growing Indoors: LED

Plants are subject to environmental variability during propagation and in the field.

Using indoor growing technologies may help reduce the impact on final yield.
Growing Indoors: LED

Tailor-made transplants = Potential Waste Reduction

- Reduction in production time
- Reductions in substrate use
- Improved consistency
- Reduction in specific disorders
May Farm Anaerobic Digestion
May Farm Anaerobic Digestion
May Farm Anaerobic Digestion ~ Soil Health
Sustainability

Roof-mounted Solar Panels

Rainwater Harvesting
Community: A business to be proud of

As progressive growers, we make a difference by developing our people, caring for the environment, and supporting local communities.
Community

Farm visits:

- LEAF and Soil Association Demonstration Farms
- Schools
- Public Open days
- Industry
Community: People

- Local recruitment
- Training & coaching
- Building school & college links
- Work experience
- Management Training Scheme

Good Business Sense
Good CSR Sense
Good Sustainability
Environment

Encouraging wildlife - protecting nesting birds

Caring for wildlife and in our use of natural resources
Environment

- Pheromone traps
- Phacelia margins
- Wondermesh
- Beetle banks
Turtle Dove Project
The key to sustainable farming is integration

In G’s aspiration to be world class farmers we also need to look after our natural resources

G’s Sustainable farming operation increases the biodiversity of the ecosystems within our agricultural land base and ensures G’s continues to be a good neighbour and guardian of our unique environment