

Integrated Plant Nutrient Management



**Caroline Drummond,
LEAF, UK
EISA, Brussels**



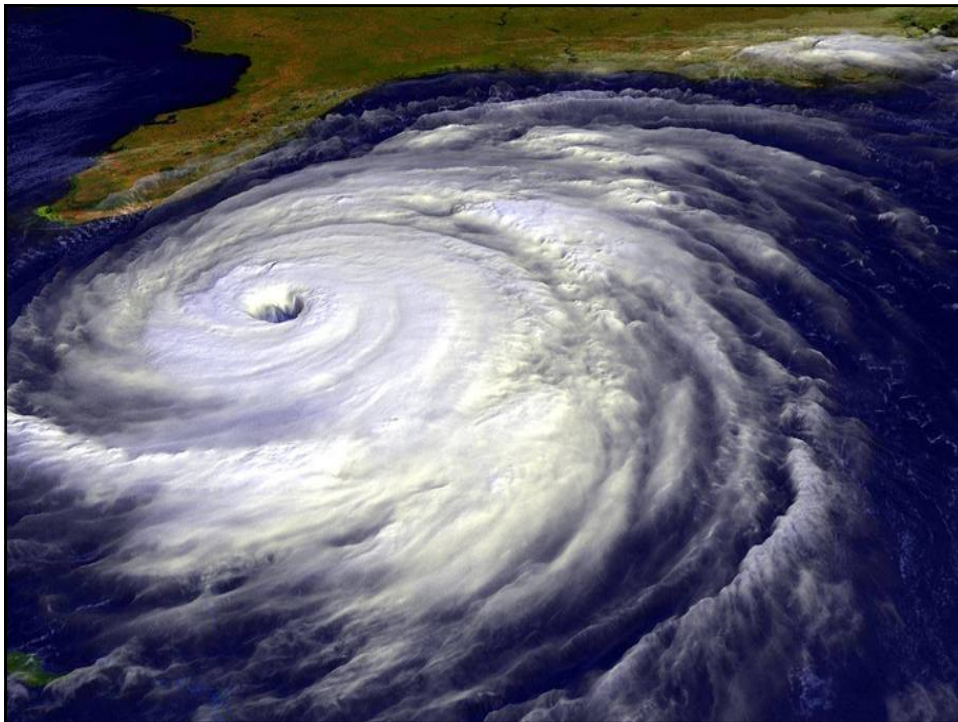
Drivers for change

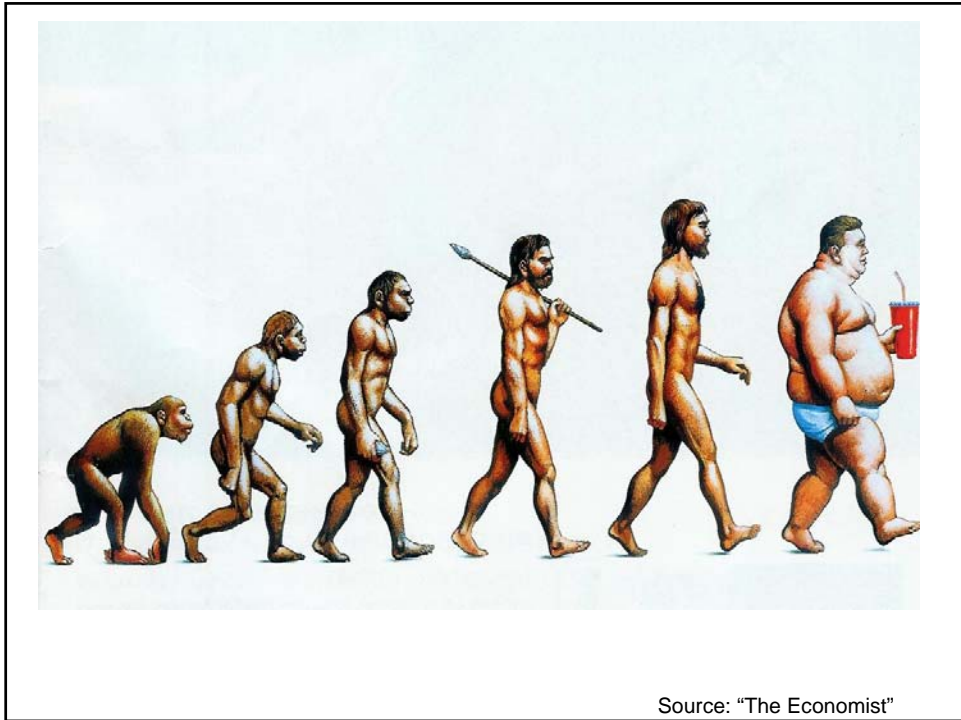
- Long term global change
- Policy
- On – farm sustainability
- Consumer choice, expectation and demand



Millenium Goals

- Eradicate extreme poverty and hunger
- Improve maternal health
- Achieve universal primary education
- Combat HIV/AIDS, malaria and other diseases
- Promote gender equality and empower women
- Ensure environmental sustainability
- Reduce child mortality
- Develop a global partnership for development






Source: "The Economist"

INTEGRATED FARM MANAGEMENT
- a balanced approach

The slide features a man in a dark sweater gesturing with his hands against a blue background. Several orange circular icons are arranged around him, each containing text:

- Energy Efficiency
- Human & Social Capital
- Crop Protection
- Soil & Nutrient Management
- Waste Management
- Wildlife & Landscape
- PR & Marketing
- Animal Husbandry





field map showing crop or soil characteristics

N
↑

Index
0
0
-1
1
-1
2
2
-2
3
-3
4
5

Integrated Farming is a multifunctional land use strategy that balances:

- Environmental protection and safe food production
- Animal welfare
- Consumer demands and expectations
- Changing trends, impacts, events and concerns
- Delivering scientifically evaluated environmental benefits
- Adaptability to respond to and build on EU and National Policies



Framework for Integrated Farming

Integrated Farming enables the farmer to

- **REVIEW** all farm practices,
- **IDENTIFY** risks and opportunities and
- **DELIVER** best practice



The IF Framework

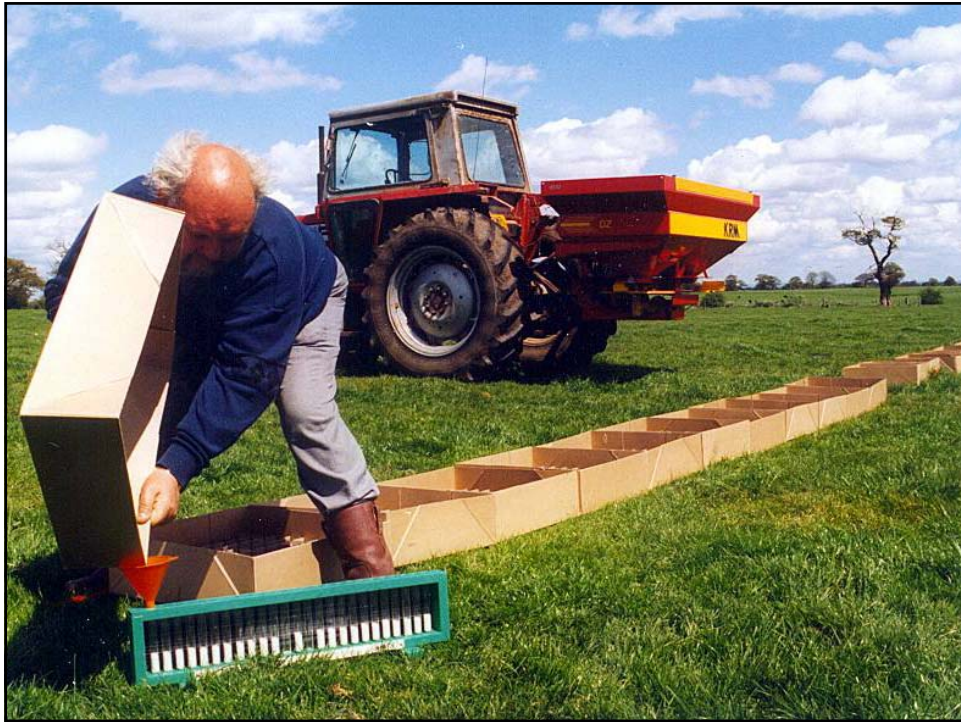
- **Soil Management:** Soil is fundamental to agricultural systems and a rich ecosystem contributes to crop and livestock performance: *“The quality of life below ground determines productivity above”*. Good soil husbandry will ensure the long-term fertility of soil, aid yield and profitability and reduce risk of soil damage and associated environmental concerns.
- **Crop Nutrition:** Nutrient Status is key to ensuring that only the recommended amount is applied. The decision making process involves crop demands, the supply that is in the soil and available nutrients from farm manure and crop residues. A balanced approach to fertilisation should be adopted, practices should be adapted to local situations, thereby reducing risks of environmental pollution by fertilisers.



FEATURES OF IF SOIL MANAGEMENT

- Soil Mapping
- Long term crop rotation
- Advice and technical recommendations for soil
- Organic Matter
- Soil Management Plan
- Monitoring Soil Quality
- Soil examination
- Assessment of Field Conditions
- Record of Soil Operations
- Soil Cover Index
- Choice of Appropriate Soil Operations
- Evaluation of Soil Management Plan
- Recommendations to take forward



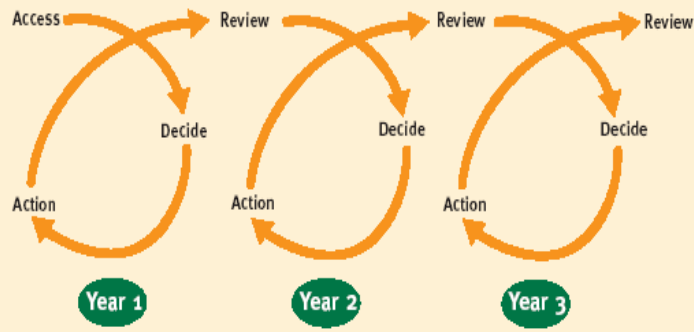


Key features of Crop Nutrition Management & IF

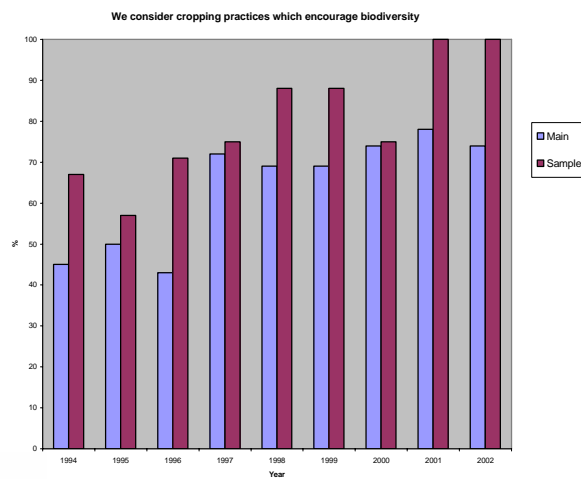
- Crop Nutrient Management Plans
- Organic Based Fertilizer Management Plan
- Training for spreading
- Advice and technical recommendations
- Calculation of Nitrogen Needs
- Nitrogen Use
- Phosphate and Potassium Balance in the Rotation
- Secondary and Micro-Nutrient Deficiencies
- Records of all Nutrient Applications
- Storage of Manures and other Organic Based Fertilizers
- Storage of Mineral Fertilizers
- Records of Import and Export of Organic Materials
- Maintenance and Calibration of Spreading Equipment
- Evaluation of Results
- Recommendations for Following Years
- Liquid fertiliser storage
- Solid mineral fertiliser storage
- Manure Management Plan



An illustration of the dynamic year-on-year progress of an integrated farming approach, using improvement opportunities identified by the appraisal and auditing of annual performance.



Results



The Voluntary Initiative

THE BENEFITS

- better profitability
- demonstration of compliance and delivery of regulation
- less risk
- more motivation
- better focus on where the business is going
- better prepared for delivering future legislative requirements
- demonstration and delivery of a better environment.



Customer Communication

'If we make no attempt to communicate the benefits of our value added food product offer, then the time pressured shopper will simply pick the cheapest product off the shelf on the reasonable assumption that 'they're all the same'



Be Prepared

***Do the right things, the right
way, for the right reasons***

caroline.drummond@leafuk.org

www.leafuk.org

