



A farmer's perspective on GMO crop technology

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Chairman

Farming Experience & Enterprise Mix

- Farming experience:
 - Ireland
 - UK
- Enterprise mix:
 - Potatoes
 - Cereals
 - Sugar beet
 - Livestock

Farm Soil Type & Climate - Ireland

- Soil types (Ireland):
 - Limestone lowland and Carboniferous shale influence.
- Climate:
 - Mean temperature 10°C
 - Annual rainfall 1.1m/an
 - Sunshine 1,200 hrs.

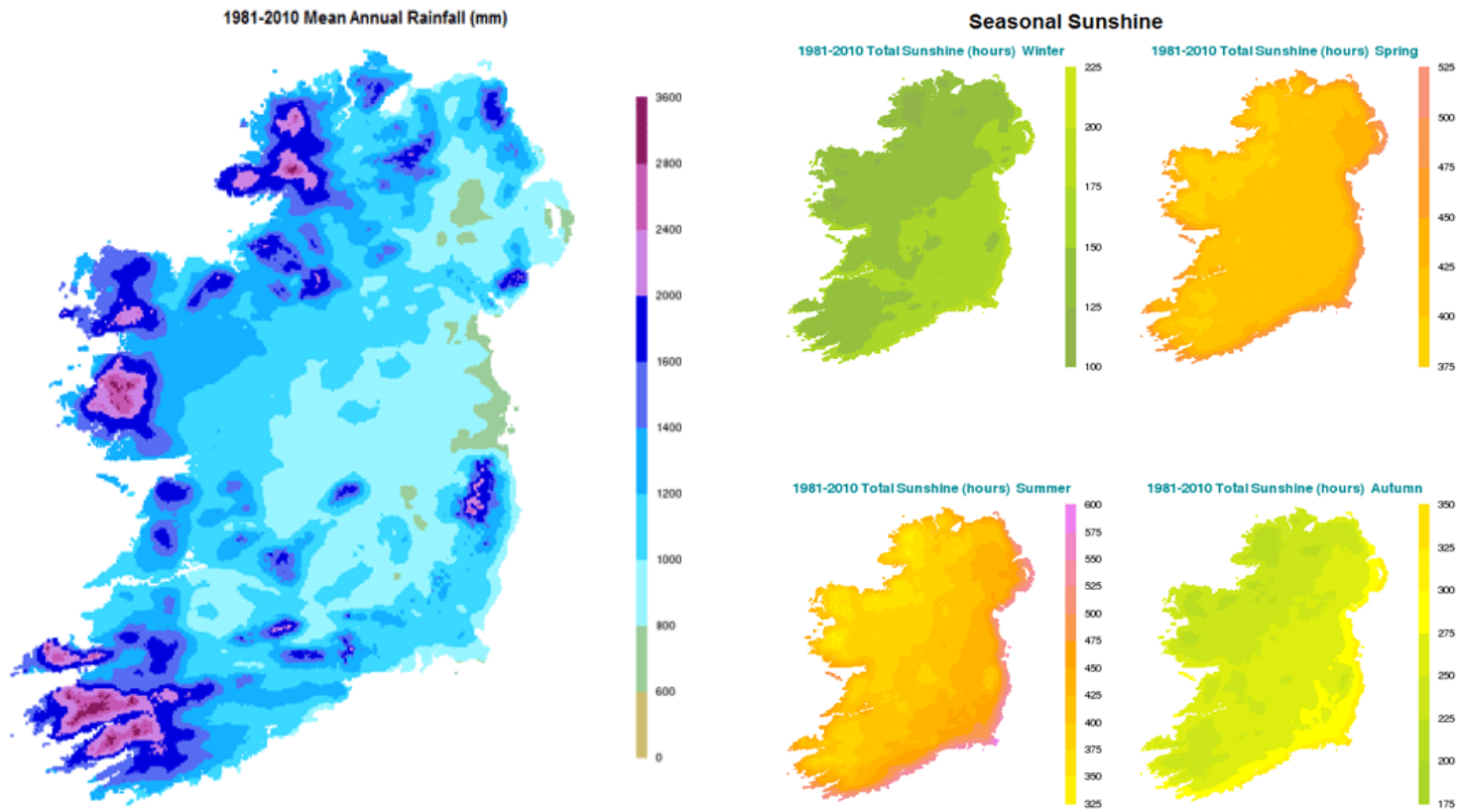
Major Challenges

- Plateauing / stagnant yields (wheat 10t/ha, potatoes 35t/ha).
- Failure to achieve full yield potential due to diseases, pests, weather events etc. (wheat 16t/ha, 70t/ha)
 - Fungal diseases: Blight, Septoria, Rhynchosporium etc.
 - Pests: Aphids, slugs
 - Viruses: BYDV, PLRV, Y etc.



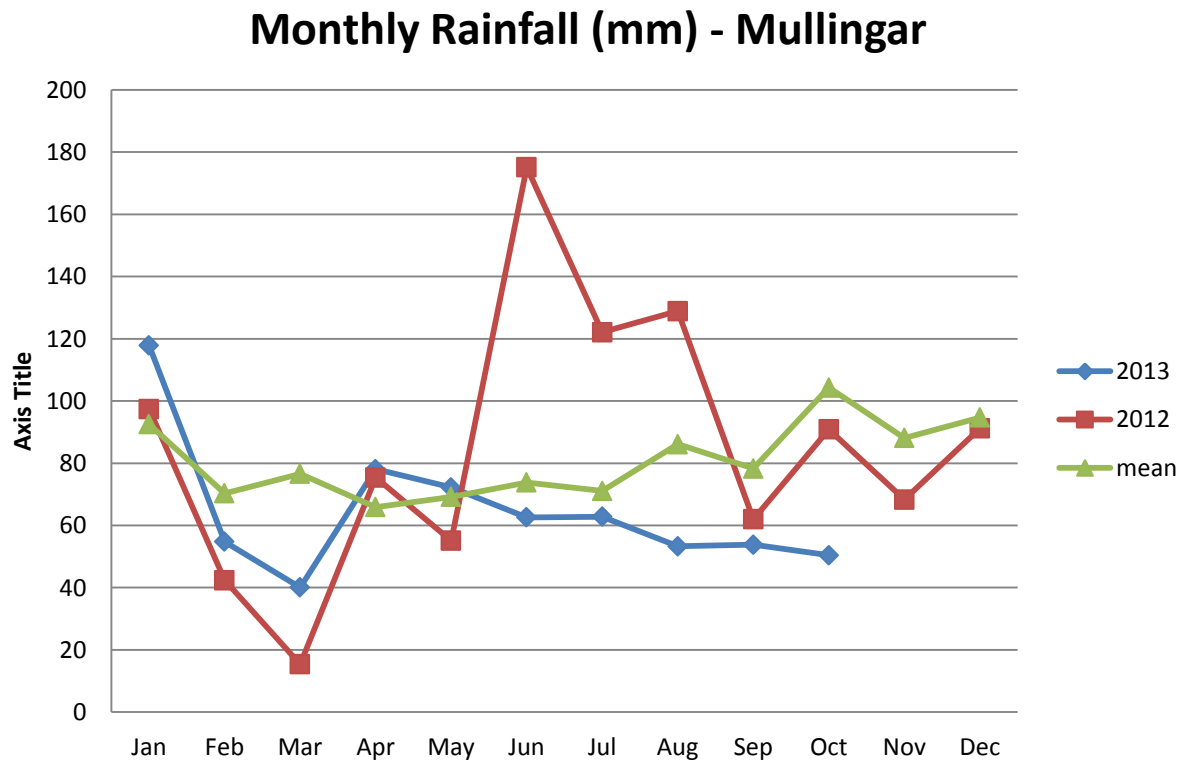
Major Challenges

- Irish climate conducive to high disease pressure.



Major Challenges

- High humidity & low incoming radiation
 - key months April to July.



Major Challenges

- Reducing array of chemical active ingredients with limited new products coming to market.
- Development of resistance – e.g. SDHIs.
- Environmental legislation – Nitrates and Water Framework Directives.



- Consumer awareness & sensitivities
- Reducing competitiveness of Irish cereals vs. GM maize

Further Innovation Needed to Maintain & Expand Production - Biotech has a Role

- EU agricultural policy must be aligned to credible science.
- Inconsistent EU approach not sustainable
 - Can import & feed non EU GM crops but can't grow them.
- Bioscience has a role in maximising resource use efficiency while protecting the environment - “More for Less”.
- Education of consumers & users plus proper scientific debate needs to take place.
- Consumer sensitivities need to be addressed
 - Independent research.

Conclusion

- Farmers
 - Consistently adopting new technologies and practices
 - React to market signals
 - Produce to a market spec
 - Must return a profit or go broke.
- Currently limited biotech opportunity in Ireland
 - Irish dairy & beef production systems predominantly grass based
 - Potatoes
 - Wheat (at a much later date).
- Science to date has delivered increased crop and food production.
- Room for coexistence of conventional and biotech crops.
- European & Irish agriculture must maintain its competitiveness.
- Informed consumer choice will ultimately dictate.

THANK YOU FOR YOUR ATTENTION