
**AGRICULTURAL INNOVATIONS:
HOW THEY IMPROVE FARMERS' LIVES
AND
PROMOTE CONSERVATION**

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MY FARMING BACKGROUND

- ✘ I am the third of four sisters
- ✘ We represent the 4th generation of farmers
- ✘ I am an agronomist
- ✘ I have been managing the family farm for the last 21 years
- ✘ Under No-Till/Minimum Tillage for 12 years
- ✘ Under Integrated Pest Management 10 years
- ✘ Main Crops: maize, wheat, barley, peas
- ✘ Beef Cattle

WHAT DOES EUROPE EXPECT OF ME AS A FARMER?

To practice sustainable farming
i.e., Produce food, feed, services
while protecting natural resources
and remaining profitable

MY GOALS AS A FARMER

1. Resist pests & diseases
2. Reduce the use of pesticides
3. Increase soil fertility
4. Minimize agricultural side effects like nitrogen contamination of water & erosion
5. Maintain biodiversity & animal well-being



WHAT TOOLS DO I HAVE?

- ❖ Few conventional crops → Agrochemicals
- ❖ 1 Biotech. Crop (Bt maize)
- ❖ No -Till / Minimum Tillage



ADVANTAGES OF FARMING A GM CROP (ONLY BT MAIZE ALLOWED IN PORTUGAL)

1. Cope with high pest pressure: avoiding losses of +/-15% on yields = +/- 300€/ha
2. Reduce the use of insecticides by eliminating 3 applications



AND

3. Higher quality feed: no mycotoxins
4. Carry on with No-Till/Minimum Tillage
5. Carry on with Integrated Pest Management



WHAT DID I REDUCE/INCREASE?

- × ↓ **Agrochemicals:** 750 liters total
- × ↓ **Fuel:** 70 liters/ha/yr=17.000 liters total
- × ↓ **Water consumption** -15%/year
- × ↓ **CO2 emissions** - 45 tons total
- × ↓ **Erosion**
- × ↑ **Soil fertility**– 5%/year → Carbon sink
- × ↑ **Contribution to mitigate climate change**

WHAT ELSE DO I NEED TO PURSUE MY GOALS?

- ✘ Crops resistant to herbicides - e.g. GM resist to glyphosate (less impact on the environment)
- ✘ Crops with drought tolerance – GM
- ✘ Crops resistant to pests and diseases
- ✘ Crops with nitrogen use efficiency

2020 CHRISTMAS TREE WISHES:

- ✘ Freedom of choice for every farmer to decide which tools & type of farming to use in his pursuit for better life;
- ✘ EU institutions' decisions based on science;
- ✘ Researchers and companies carry on bringing new biotech crops.