



#### **GENERAL INFORMATION**

Location of farm	Lecarrow, Co. Roscommon
Name of the farmer	Mervyn Auchmuty
Size of farm	162 Hectares
Permanent staff	2 permanent staff (Mervyn and his father Robert), temporary help in the summer.
Main products of farm	Wheat, Barley Oats and Bean, Sheep & Beef

## **CURRENT REGENERATIVE AGRICULTURE PRACTICES ON THE FARM**

Farmland cultivated with RA	Cropland
practices	
Crops produced with RA practices	All cropland
Duration of using RA practices	2013 until now.



Image 1: Cattle grazing on diverse multispecies sward

## Description of RA practices used in the farm

- 2015 until 2019 he Strip Tilled
- In 2019, he bought a John Deere Direct Drill
- No Ploughing, unusual in Ireland
- Direct Drilling all crops
- Cover Crops & healthy soil:
  - Cover crops ensure no bare soil over winter
  - Cover crops keep the soil alive; soil degrade when there is no plant there
  - Diverse cover crops; each plant brings something different that is of benefit to the soil
  - A good soil structure also includes worms which aerate the soil



- Composting for natural fertilisers
  - Farmyard manure used to create fertilser: takes time and effort
- Mervyn creates seed washes: home saved seeds are placed in a bucket and covered with rainwater left for 24-48 hours and the liquid turns into a darl "tea" colour filled with good bacteria. This wash is put on the barley and wheat to strengthen the roots.
- Seaweed is also used for natural fertilisation.
- Crop rotation.
- Multispecies swards in the livestock grazing land.
- Hedgerows and spaces for nature.

#### STARTING AND MOTIVATION BEHIND REGENERATIVE AGRICULTURE

Main motivation	His farm has stony land, making it difficult to plough. Direct Drilling meant less manhours picking stones, burning diesel and ploughing.
Learning the RA farming practices	Join the farmer led organisation 'BASE' in 2018 where he got to chat and learn from other farmers trying out regenerative agriculture.
Did the farmer receive training?	Some;  - Learning from BASE Training and support groups - farmers educating farmers - BASE WhatsApp Group and Workshops - NOTS National Organic Training Skillnet provide courses in soil, testing and regenerative agriculture - Learning from youtube; Gabe Brown
Did the farmer receive financial support?	Indirectly; the TAMS grant allowed Mervyn to purchase the Direct Drill Planter.



Image 2:Comparison of Root Structures: Roots on the left treated with Seed Wash, Roots on the right Untreated

#### **RESULTS OF REGENERATIVE AGRICULTURE**

# Benefits of using RA practices

- Cheaper / Less input costs
- less man hours ploughing the land
- soil structure has improved greatly
- Mervyn gets great satisfaction from deciding what is best for his farm; not being told what to do! It is an empowering process to be able to make your own decisions and understand the biology of your land
- Community gained from farmer groups such as BASE
- Healthier soil

### Obstacles of using RA practices

- Lack of knowledge in the RA space
- Encouragement from friends and family
- The Irish national advisory service, Teagasc, are only recently coming around to the idea of RA.

Connecting with other farmers and engaging in events like Farm Walks have allowed Mervyn to overcome the obstacles. Mervyn said that farming is not all about yields. Being open to trial and error and learning from ones, and each others mistakes can help to overcome barriers with RA. Learning from your failures is a key part of RA for this farmer.



Image 3: Long, healthy root structure following seed wash & Min Till practices

Is the farmer happy overall with RA?	Yes
Does the farmer intend to continue RA?	Yes
Does the farmer intend to introduce changes in RA methods or crops?	Definitely, he hopes to trial at least one new Regenerative technique each year.  Last year, he learned how to melt urea to spray directly on crops as foliar feed (not organic, but regenerative). This year, he hopes to experiment more with using seaweed. Learning new methods has helped to keep him motivated with his work on the farm.



Image 4: Arable Crops growing on straw covered, untilled soil



Image 5: Tractor with Direct Drill, planting crops on untilled soil



Image 7: Nest of baby hedgehogs



Image 8: Picturesque land on Robert & Mervyn's Roscommon Farm



Image 6: Example of a Strip-Till Drill on unploughed soil

# Regenerative agriculture. An innovative approach towards mitigation of climate change through multi-tier learning.

