

# Wye Nutrient Balance Pilot Programme



- In 2024 & 2025 a pilot was launched across 140 holdings covering >30000hectares.
- Range of farm sizes and enterprises including sheep, dairy, arable, beef, poultry.

PLANET's Farmgate tool is used to:

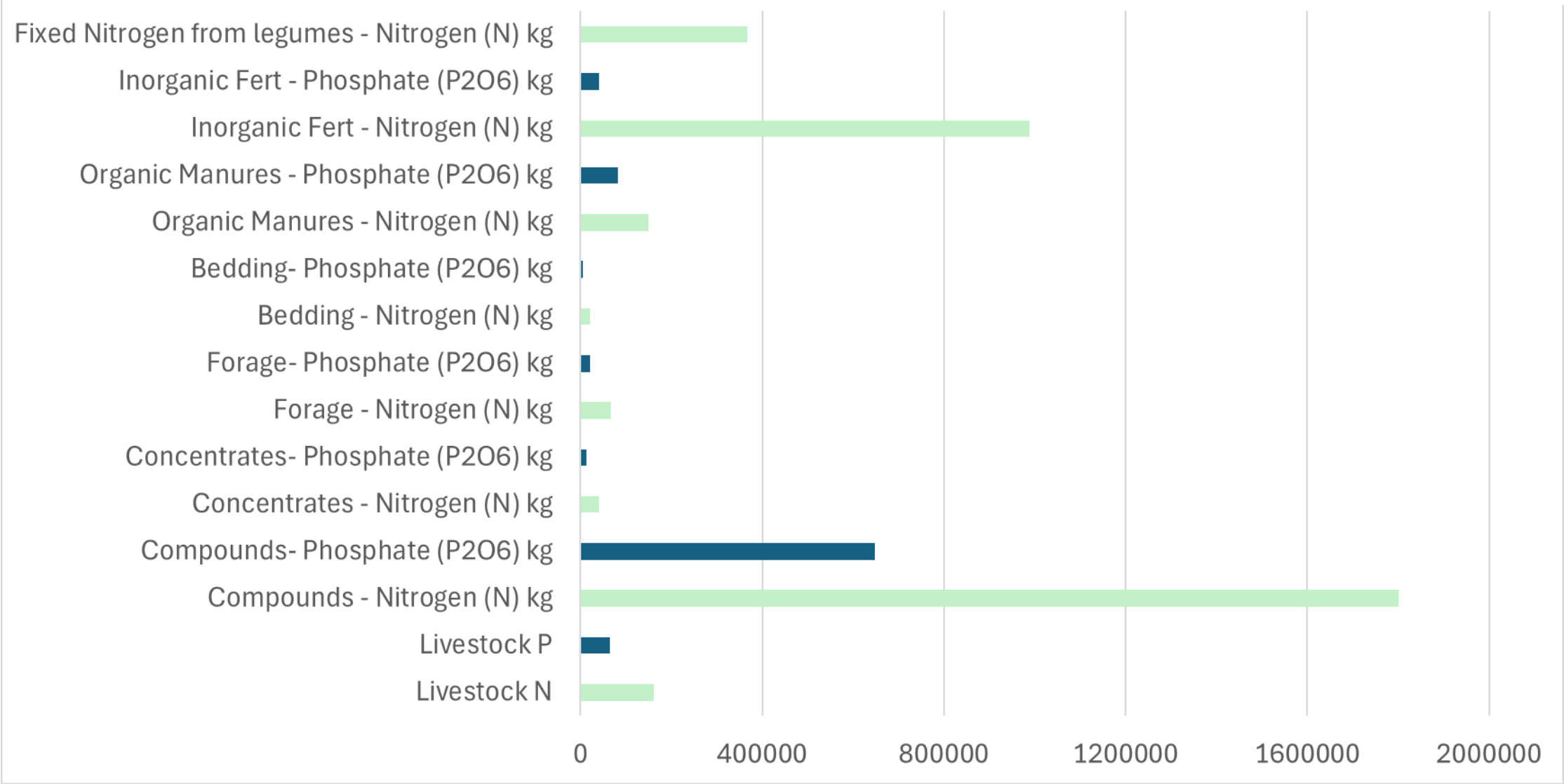
- Collate data on imports :
  - Fertiliser or manures
  - Livestock bought on to holding
  - Feed or bedding
- Collate data of exports :
  - Manures
  - Livestock sold off the holding
  - Crops and product
- Balance given of Total Nutrient Load and Load/hectare for the holding.

**Rural Hub**  
**Herefordshire**

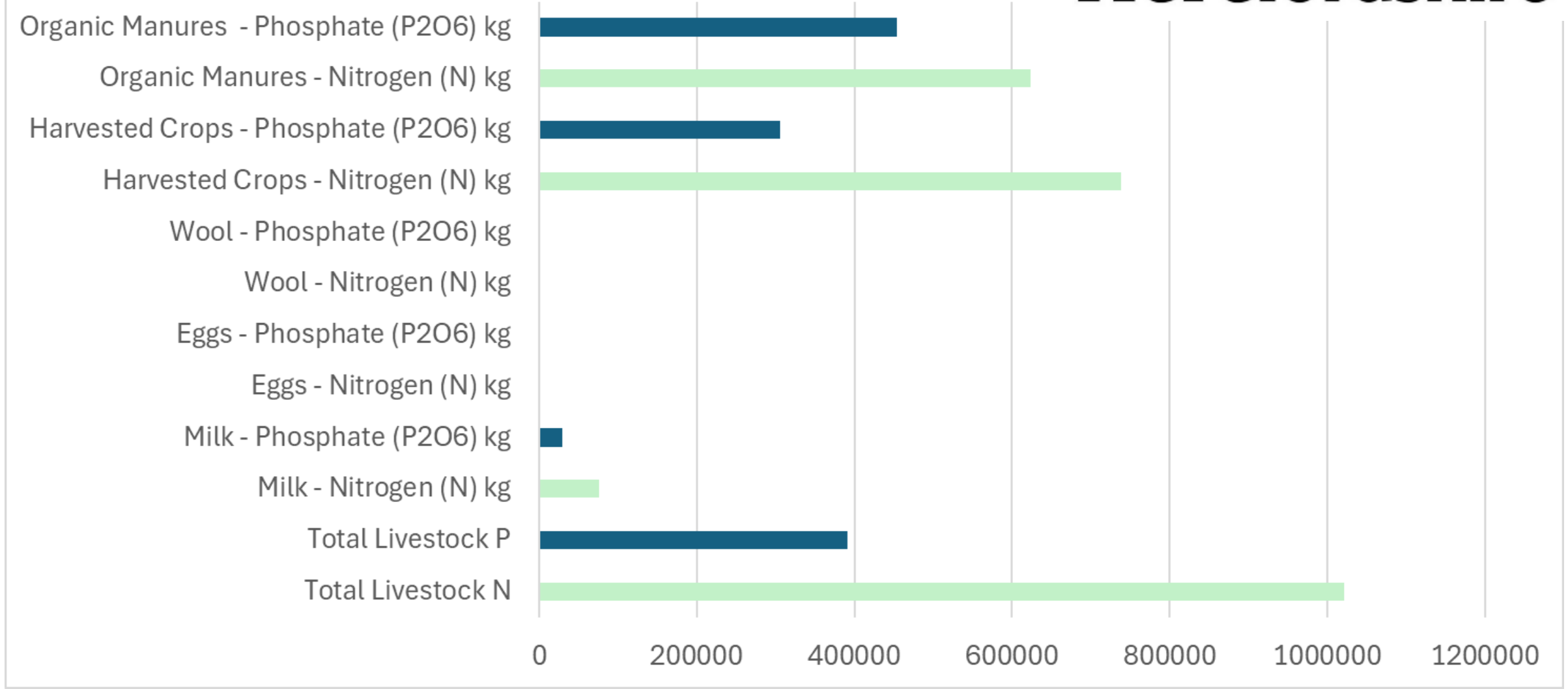




# Nutrient Imports by Category

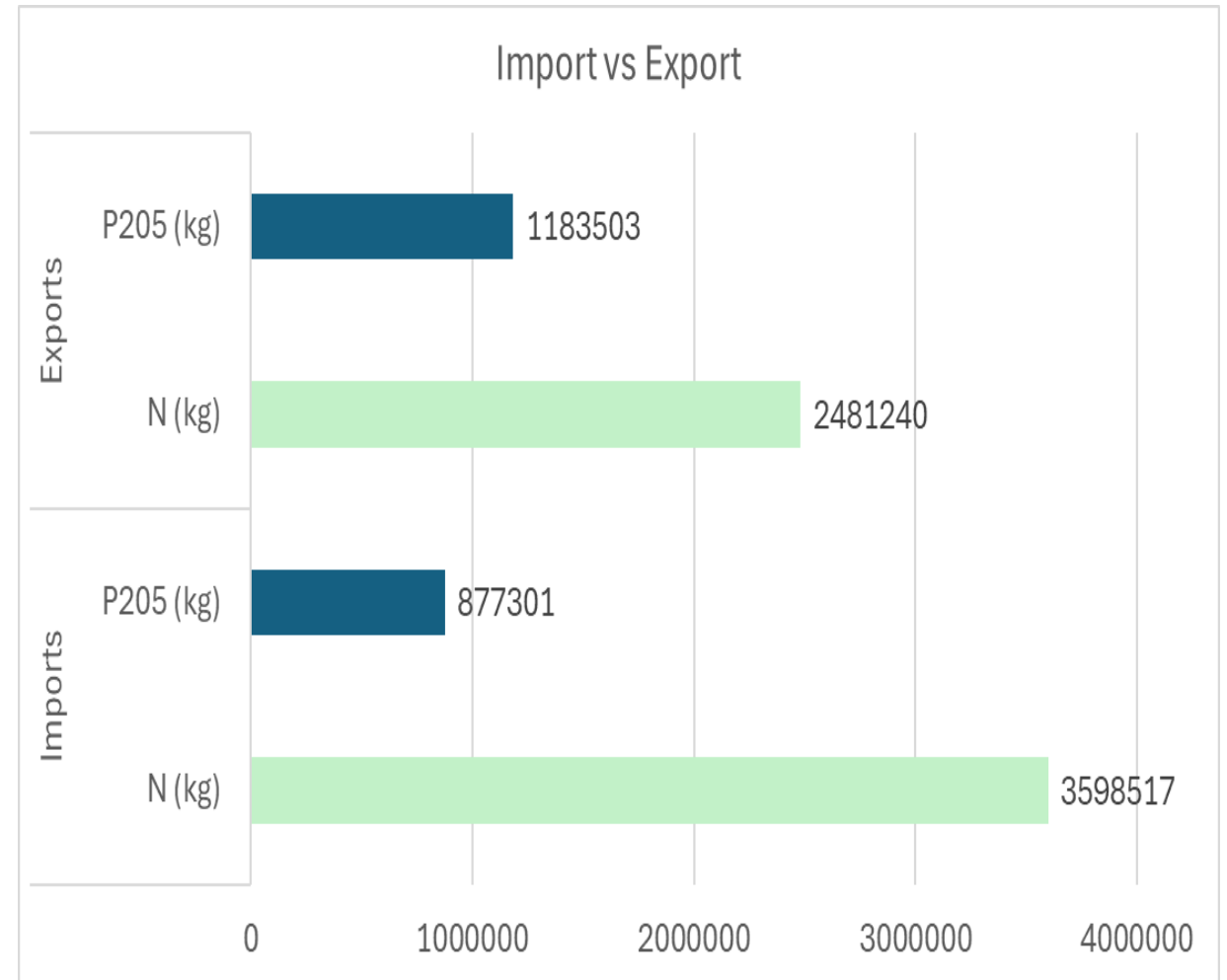
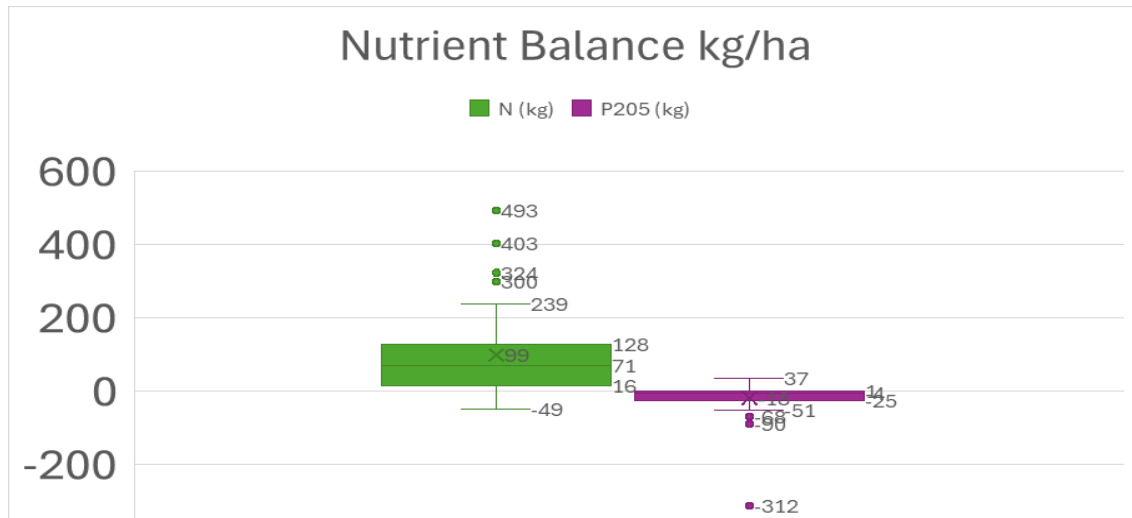


# Nutrient Exports by Category



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- REPHOKUS estimates +6.2kg P/ha
- Pilot average -6 kg P/ha
- Pilot average +82kg N/ha



## Nutrient Load Scenarios:

Lancaster modelled scenarios to determine the impact of different levels of intervention. These are summarised below:

|                 | <b>REPHOKUS 2023</b> | <b>REPHOKUS 2025<br/>Including export<br/>600t P</b> | <b>Herefordshire<br/>2024 Pilot</b> |
|-----------------|----------------------|------------------------------------------------------|-------------------------------------|
| Total P Surplus | 2300t                | 1700t                                                | -180t                               |
| P Surplus kg/ha | 8.3                  | 6.2                                                  | -6                                  |

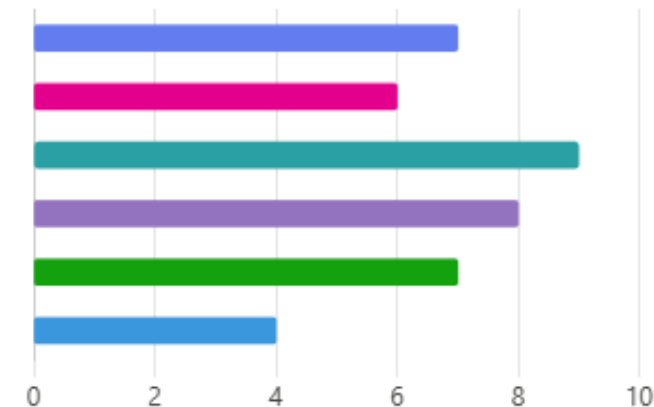
A Net zero P scenario includes a combination of; reduction in artificial fertiliser use, increased export of manures from the catchment and reduction in livestock.

# What next?

- Positive feedback from participants who found process informative for planning how to reduce nutrient load of their farming enterprises.
- Pilot findings differ enough from national datasets to justify expansion of the project during 2025 & 2026 – funding committed by Environment Agency
- Tesco supporting this initiative and encouraging engagement through their supply chain with visits for ABP, Dunbia & Kepak suppliers.
- Expansion of the pilot during 2026 & 2027

## What are the barriers preventing farms from making further changes to nutrient management?

|                                           |   |
|-------------------------------------------|---|
| Financial constraints                     | 7 |
| Uncertainty about regulations             | 6 |
| Lack of clear, practical guidance         | 9 |
| Difficulty accessing reliable advice      | 8 |
| Concerns about the impact on productivity | 7 |
| Other                                     | 4 |



# Garnstone Farms – Case Study Nutrient Balance

| 2022                                                                          | Nitrogen (N)<br>kg | Phosphate (P <sub>2</sub> O <sub>5</sub> )<br>kg | Potash (K <sub>2</sub> O)<br>kg |
|-------------------------------------------------------------------------------|--------------------|--------------------------------------------------|---------------------------------|
| <b>Total Imports</b>                                                          | 163,661            | 71,215                                           | 89,857                          |
| <b>Total Exports</b>                                                          | 94,225             | 38,380                                           | 57,582                          |
| Nutrient balance for the whole farm                                           | 69,436             | 32,835                                           | 32,275                          |
| Benchmark                                                                     | No benchmark       | No benchmark                                     | No benchmark                    |
| Nutrient balance per each ha or acre of farmed land (excluding rough grazing) | 61                 | 29                                               | 29                              |
| Benchmark                                                                     | 30 to 120          | 0 to 30                                          | 0 to 60                         |

# Garnstone Farms – Case Study Nutrient Balance

| 2024                                                                          | Nitrogen (N)<br>kg | Phosphate (P <sub>2</sub> O <sub>5</sub> )<br>kg | Potash (K <sub>2</sub> O)<br>kg |
|-------------------------------------------------------------------------------|--------------------|--------------------------------------------------|---------------------------------|
| <b>Total Imports</b>                                                          | 115,473            | 2,258                                            | 31,258                          |
| <b>Total Exports</b>                                                          | 84,420             | 35,200                                           | 47,923                          |
| Nutrient balance for the whole farm                                           | 31,053             | -32,942                                          | -16,665                         |
| Benchmark                                                                     | No benchmark       | No benchmark                                     | No benchmark                    |
| Nutrient balance per each ha or acre of farmed land (excluding rough grazing) | 27                 | -29                                              | -14                             |
| Benchmark                                                                     | 30 to 120          | 0 to 30                                          | 0 to 60                         |