



Farm overview

Il Cerreto, IT

Cerreto, 45 – 56045 Pomarance, Pisa, Tuscany, Italy

Organic farming since 2000

Biodynamic certification by Demeter



Yield enhancing strategy, what makes the farm special??

Biodynamic compost and preparations build soil fertility. Semi-free-range livestock with pasture rotation improves animal welfare and recycles nutrients. Green manure before millet and sunflower increase soil structure and supports yields.

Optimisation wishes and questions: The main optimisation priorities focus on improving soil preparation and cultivation on heavy clay soils, strengthening weed management – especially in spring crops – and refining soil fertility management (e.g., reducing plough use).

Boni Brivio Carlo Pierluigi (r)

Farm: biodynamic farm 266 ha with a mixed production system (arable farming, livestock, and forage), focused on direct sales and wholesale of both processed and raw products.

Soils: clay-loam

Rainfall and temperatures

| 2008-2023 | J | F | M | A | M | J | J | A | S | O | N | D | Year |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|--------|
| Rainfall [mm] | 6.96 | 7.63 | 9.92 | 13.3 | 16.97 | 21.52 | 24.33 | 24.42 | 20.55 | 16.46 | 11.99 | 8.29 | 15.23 |
| Temperature [°C] | 73.56 | 73.68 | 67.05 | 61.02 | 67.19 | 43.61 | 30.82 | 31.16 | 93.26 | 102.19 | 121.55 | 87.01 | 852.11 |

Crops, yields and fertilisation, 2019-2024 [t/ha]

| Crop | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Mean |
|-------------------|------|------|------|------|------|------|------|
| 1 Durum wheat | 2.3 | 1.7 | 1.9 | 2.7 | 2.3 | | 2.18 |
| 2 Turanicum wheat | 1.5 | 1.5 | 1.2 | 2.4 | 1.9 | 1.0 | 1.58 |
| 3 Soft wheat | 1.8 | 1.2 | 2.1 | - | - | - | 1.7 |
| 4 Barley | 2.3 | 1.9 | 2.7 | - | - | - | 2.3 |
| 5 Emmer wheat | 2 | 2.4 | 2.4 | 2.1 | 1 | 2.3 | 2.03 |
| 6 Chickpea | 0.8 | 0.7 | 0.5 | 0.7 | 0.5 | 0.5 | 0.62 |
| 7 Millet | 0.7 | 1 | 1 | 1.1 | - | 1.2 | 0.95 |
| 8 Sunflower | 0.5 | 0.7 | 0.6 | 0.6 | 0.3 | 0.7 | 0.56 |
| 9 Linseed | 0.7 | 0.6 | 0.7 | 0.6 | 0.6 | 0.7 | 0.65 |
| 10 Lentils | 0.7 | 0.7 | 0.8 | 0.6 | 0.5 | 0.7 | 0.67 |
| 11 Einkorn wheat | 2 | 2.1 | 2.1 | 1.9 | 1.7 | 1.9 | 1.95 |
| 12 Oats | 1.9 | 1.7 | 1.7 | - | - | - | 1.76 |

Grain cereals: 86-87% DM, grain legumes 84-85% DM; Fertilisation: biodynamic compost made from plant residues (mainly spelt husks) and barn bedding; inoculated with biodynamic preparations 15 t/ha*year on each field

Photos: © Il Cerreto Farm

Machinery

Tractors

| | Power HP |
|-----------------|----------|
| Fendt 724 | 240 |
| Fendt 315 | 150 |
| John Deere 6330 | 200 |

Working width (m)

Cultivation

| | |
|--|-----|
| Nardi 3-bottom plow | 2 |
| Siderman 7-shank subsoiler | 3.5 |
| Nardi disc harrow | 4 |
| Siderman cultivator | 4.8 |
| Siderman vibro cultivator | 5 |
| Gaspardo seed drill | 5 |
| Kuhn combination seed drill with power harrow | 3 |
| Gaspardo 5-row precision planter (65 cm row spacing) | 2.6 |

Harvest

| | |
|---------------------|-----|
| John Deere 1450 cws | 5.5 |
|---------------------|-----|

Fertilisation

| | |
|--------------------------|------|
| Ren Mark manure spreader | 6-10 |
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