

Argençola, Spain

Organic production

certified acc. (EU) 2018/848 since 2003

Naturland since 2003



Josep Mestre Vilaplana

Yield enhancing strategy, what makes the farm special?

Can Mestre is an agroecological farm, our agriculture is based on respect for the environment and the care of natural resources. We grow varieties of legumes and ancient cereals, crops suitable for our dry land, because they preserve their original properties and adapt to the environment. We work the fields in rotation, incorporating the remains of crops into the soil to improve fertility and increase water retention. Because of our way of understanding agriculture, we close circles, we sow the seeds, we harvest it, we clean the grain, we package it and we grind some of it and serve it as flour. The grinding is done with a stone mill and the energy used comes mainly from solar panels. We sell locally to avoid wasting energy.

Basic definition of the farm

Dryland arable farm surrounded by forest.

Things in production that should be optimised from the farmer's point of view

Increase organic matter to improve the soil.

Farm: 90 ha of arable crops and 50 ha of forest **Soil:** Calcareous soils

Rainfall and temperatures:

2003-2023	J	F	M	A	M	J	J	A	S	O	N	D	Year
Rainfall [mm]	59.5	50.6	48.6	38.5	50.4	68.3	70.3	73.9	54.8	53.6	53.3	64.3	686
Temperature [°C]	1.5	1.8	4.2	8.1	12.5	15.7	17.9	17.5	13.8	9.5	5.2	2.4	9.2

Arable crops, yields, fertilisation, 2019-2024, (rotation 1) [t/ha]:

	2019	2020	2021	2022	2023	2024	Av.
1 Winter wheat	2.10	2.40	1.80	1.00	0.80	1.20	1.55
2 Spelt	2.30	2.50	1.50	0.90	0.85	1.10	1.53
3 Barley	1.70	1.80	2.00	2.80	0	1.80	1.68
4 Rye	1.90	2.30	1.90	0.70	0.80	1.50	1.52
5 Chick pea	0.85	1.00	0.80	0.50	0.25	0.30	0.62
6 Lentils	0.90	1.20	0.60	0.40	0.20	0.40	0.62
7 Other legumes	1.00	1.30	0.50	0.20	0	0.20	0.53
8 Moustard	0.45	0.60	0.40	0.30	0	0.20	0.33
Fertilizers							
Compost [t FM/ha] Fertilisation during cereal crops	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Compost [t FM/ha] Fertilisation during legume crops	2.00	2.00	2.00	2.00	2.00	2.00	2.00

Grains: 86% dry matter (DM), ° Compost with 63% DM (kg/t FM): 7 N, 1.4 P, 5 K
nutrients applied in arable cropping Ø 2024 [kg/ha]: by compost 25 N, 5 P, 17 K,

Machinery

Tractor 120 kW Deutz Agroton 165 HP

Kongskilde cultivator 3 m

Kongskilde Vibro cultivator 4.5 m

J. Martorell disc harrow 15 discs

Solà Neumasem trailed seed drill 4 m

Weeder 6 m

Claas Dominator 150 combine, 4.20 m

Anibal Manure spreading trailer 10 t

Rigual 12 t grain trailer