

# Corbas farm, South-East FR

Organic farming certified  
acc. (EU) 2018/848 since 2012



Canola intercropped with legumes in the diversified system



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## Yield enhancing strategy, what makes the farm special?

Since 2008, ITAB is facilitating a network of “system experiments” on stockless organic cropping systems, known as ROTAB. Those systems look at the complex combination of practices and decision rules that make the reality of commercial farms.

Corbas is a system experiment launched in 2012, managed by a farmer and by the ISARA agricultural high school in Lyon. It compares two different rotations implemented in the same farm, first one (rotation **a**) relies on diversification and the other (rotation **b**) on soil conservation. Both share common objectives: improved inputs autonomy, soil quality improvement, stability of performance through pest, disease and weeds control and reduction of production costs.

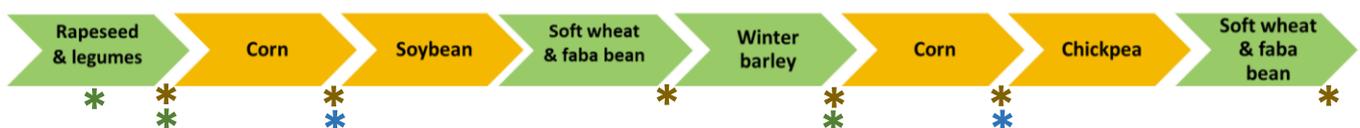
**Optimisation wishes and questions:** maintain weed biomass at a reasonable level and limit establishment of problematic weeds – achieve gross margin equivalent or superior to the farm average.

## Crops yields, 2016-2023 [t/ha]

Crop		Objectives		2016	2017	2018	2019	2020	2021	2022	2023	Means			
Rotation a	Rotation b														
Corn	Corn	10	10			7	5	9	9			11	12	9.8	9
Soybean	Soybean	3.5	3.5	3	3				4		1			3.4	3
W-wheat + faba bean	Soft wheat	4	5	4	4.8					2				3.8	4
		+1			+0	4				+0.7	4	4	4	+0.8	
W-barley	W-barley	4.5	4.5		4.5	4	4	3				5	4	4.5	4
Chickpea		1.5						0		1.8				1.1	
W-canola intercropped with a legume		2		1								1.3		1.3	

Grains: 85% DM; **a**: irrigation: spring crops; fertilisation (commercial organic fertiliser based on poultry manure and/or slaughterhouse by-products): chickpea: N-22, P-22, K-22, maize: N-22, P-22, K-22, barley: N-20, P-20, K-20, wheat: N-70, P-80, K-20, rapeseed: N-90, P-20, K-10, wheat + faba bean: N-90, P-50 (kg/ha); **b**: irrigation: spring crops; fertilisation: maize: N-22, P-22, K-22, barley: N-30, P-30, K-20, wheat: N-50, P-50, K-15 (kg/ha); no ploughing (only simplified sowing, strip-till and direct sowing)

### a) Diversify rotation



### b) "Fertility" rotation



- \* Ploughing
- \* Non-legume cover crops
- \* Legume and non-legume cover crops

Photos: © ISARA

## Machinery

<b>Tractors</b>	<b>Power HP</b>
Fendt 720	200
Fendt 514	140
New Holland t6.155	125
<b>Cultivation</b>	<b>Working width (m)</b>
Plough - RW6 (Grégoire Besson)	2.5
Chisel (Quivogne)	4.5
Disc Harrow – Rubin 9 (Lemken)	3
Disc Harrow – Normandie (Grégoire Besson)	4
Tine cultivator – Karat (Lemken)	4
Herse plate	6
Rotary hoe (Hatzenbichler)	6.4
Roller (Quivogne)	6
Vibrocultivator – Korund (Lemken)	6
Single-seed drill – NG Plus ME (Monosem)	4.8
Combined cereal seed drill with independent discs – Solitair (Lemken)	3
Grain drill – Solitair9 (Lemken)	4.5
Harrow (Hatzenbichler)	12
Cultivator (Ribouleau)	4.8

## Machines in cooperation

### Fertilisation

Manure spreader  
 Centrifugal fertiliser spreader – Axis 40.1 (Kuhn)

### Harvest

Unknown model

ITAB, Corbas farm 02/2026