

AGRICUTURAL SCHOOL OF

MAGRANE ; ZAGHOUAN ;

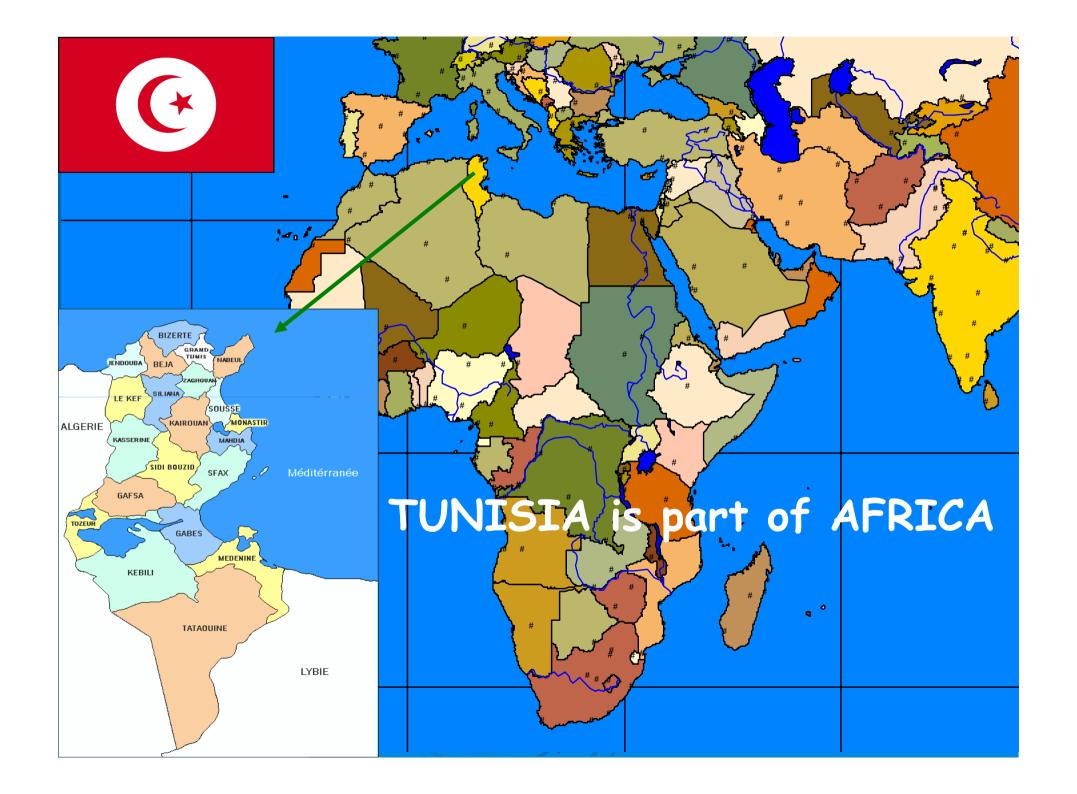
TUNISIA



« Agricultural sector of TUNISIA»

Summary

- Macro economic context,
- Agricultural sector contribution to national economics and trade balance
- Farm structure/Production system.
- Main agricultural production
- Importance of cereals
- Typical farm



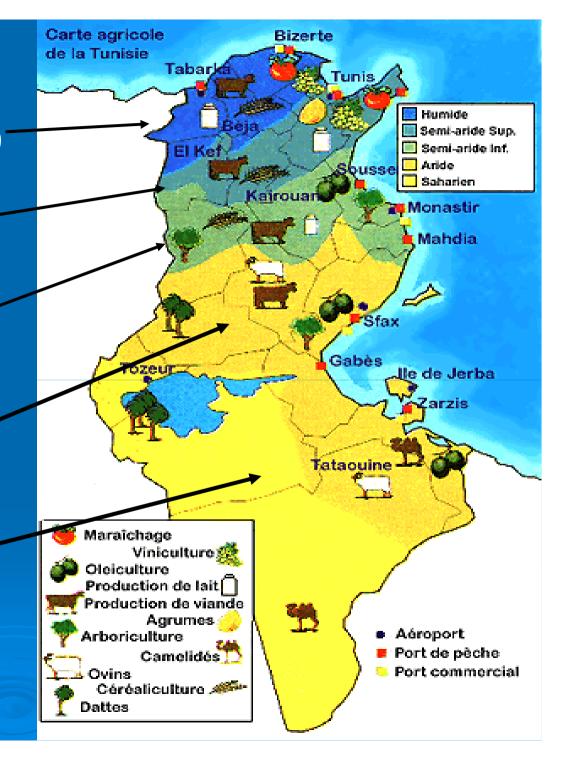
Humid and sub-humid > 600 mm/year

Semi arid superior > 400 mm/year

Semi arid inferior > 200 mm/year

Arid > 50 mm/ year

Saharien < 50 mm/ year



Macro economic context

- Total area of Tunisia is 162 155 km² (less than half the size of Germany)
- Population is 10.5 million with a growth rate of 1.2% (68% live in urban areas)
- 53 % of the population has less than 30 years of age
- Per capita income is 5000 DT ± 3700 \$ with a growth rate of 4.6%/year
- ♦ GDP (58% services, 30% industry, 12% agriculture)
- Unemployment is relatively high (14.7%)
- Free trade agreement with E. U. for manufactured products operational

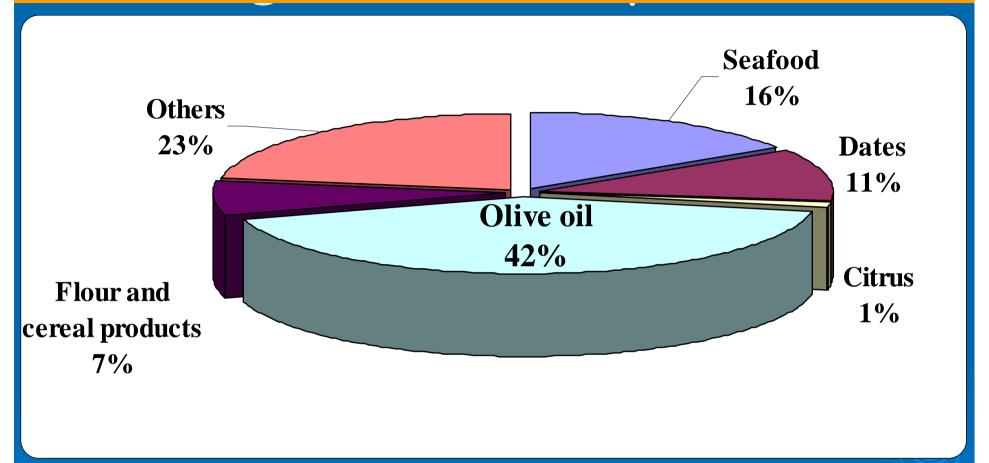
Agricultural sector importance

- Agricultural contribution, 12% of GDP, 18.3% of employment, 13.5% of total exports
- ▶ 87% of agricultural imports are covered with agricultural exports. (average 2000/2008)
- ◆ Agricultural production annual growth is 2.6% (average 2002-2006)
- Agricultural investment in a steady decline:
 - 13% (1997-2001); 10.1% (2002-2006); 8% (2007-2009)
 - Hydraulic investment is 40% of total agricultural investment since 30 years

Government agricultural strategy

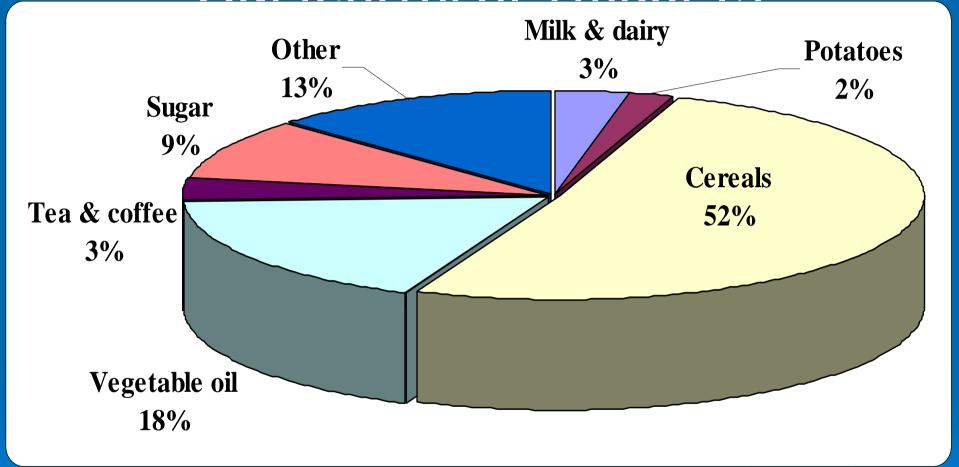
- Improve the competitiveness of the sector
- Promotion of export as growth generator
- Natural resources conservation for sustainable agricultural development
- Consolidation of food security as a vector of national sovereignty.

Agricultural Exports



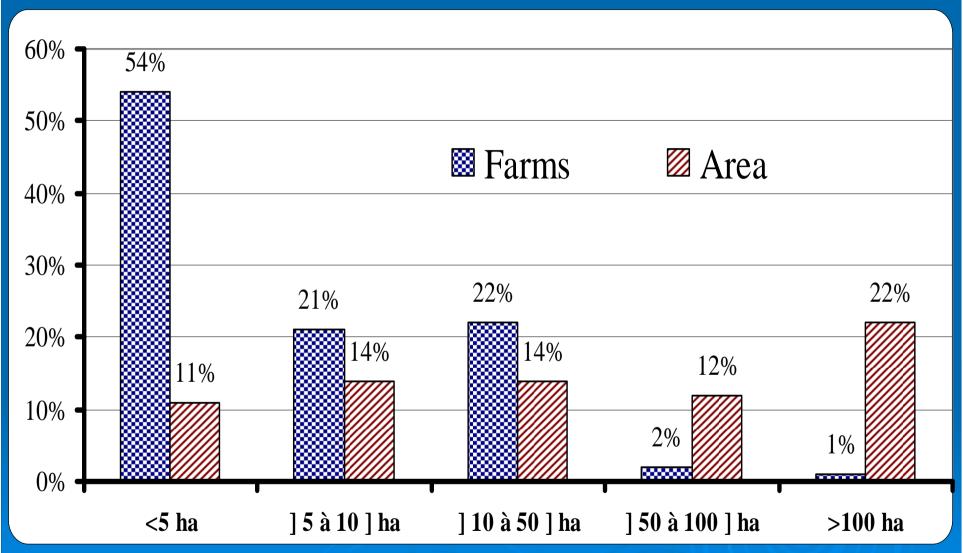
Tunisia is a main producer and exporter of olive oil in the world. Other exported products are seafood, dates and citrus.

Agricultural Tongarta



Cereals imports represent on average 52% of all agricultural imports

Farm structure/Production systems



54 % of the farmers own only 11% of the land



Farm structure/Production system

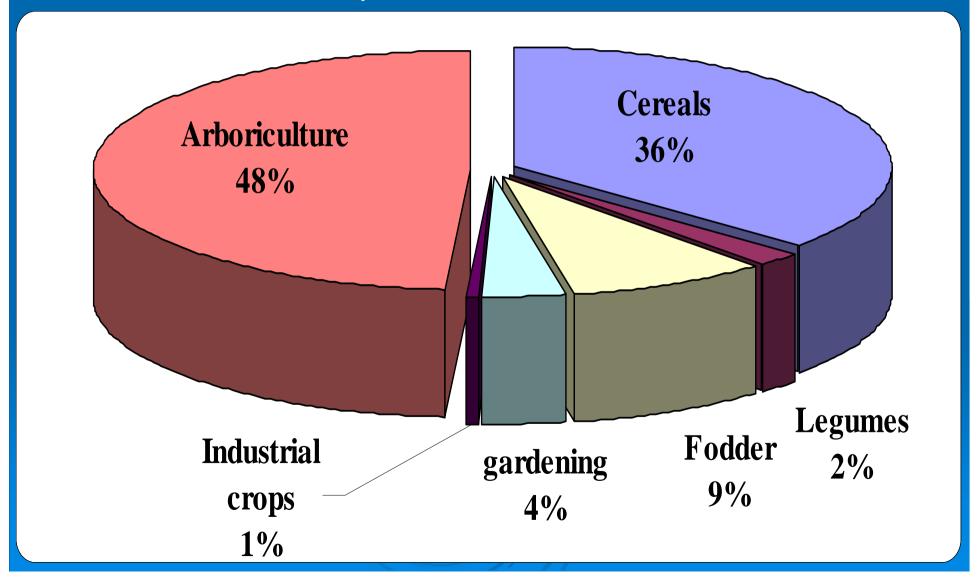
- ♦ 89% of farm land is privately owned
- ▶ 10% of farm land are state owned
- Average farm size 10.2 ha
- 0.5 ha of agricultural land per inhabitant
- 31% of farmers live in urban areas
- Only 39% of all farms are managed by full time farmers
- ♦ 8.5% of agricultural land is irrigated

Farm structure/Production system

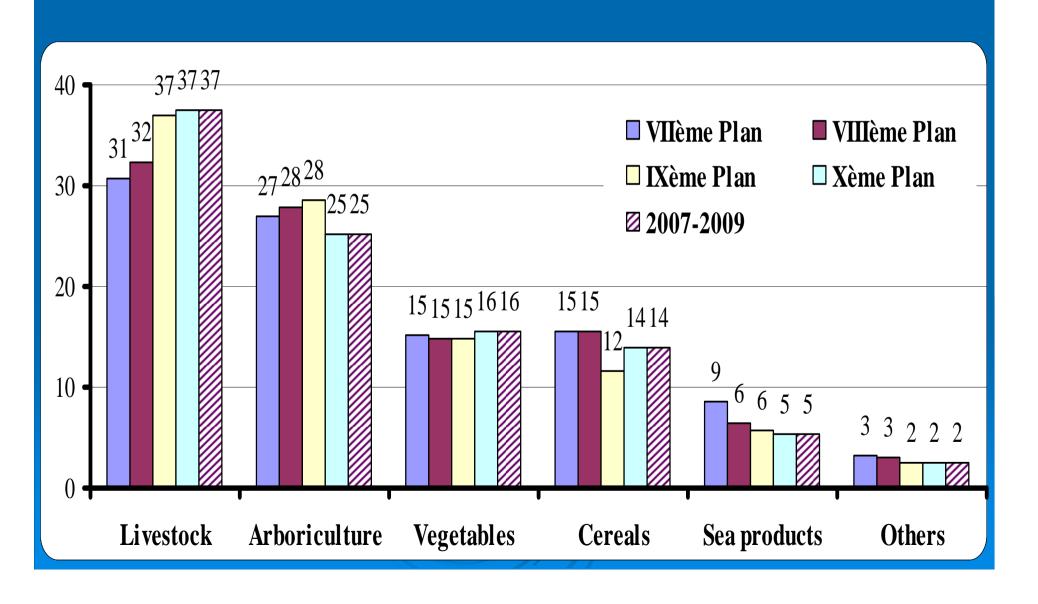
- The geographic location of crops is:
 - Durum wheat and other cereals in the north
 - · Livestock mainly in the center
 - Olive orchard in the Sahel (central coastal region)
 - Dates down south in the oasis

Main agricultural productions

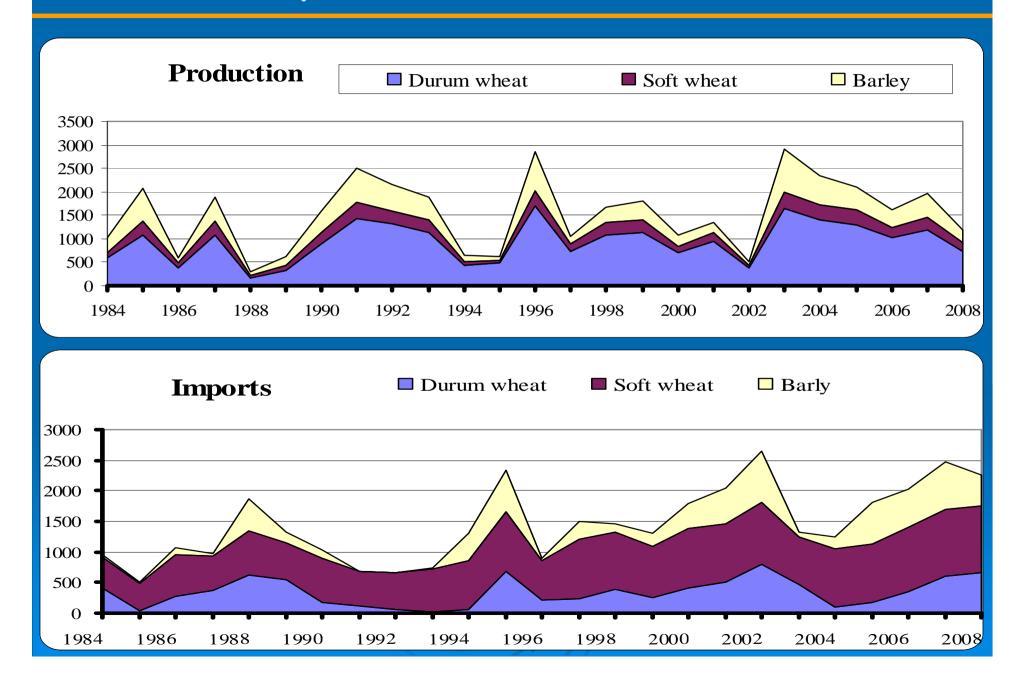
Distribution of cultivated area



Contribution of each group of products to the agricultural total production



Importance of cereals





TUNISIAN TYPICAL FARM

Location of the farm

- North East of Tunisia
- Agro-ecological zone: Upper semi-arid and sub-humid
- Average rainfall: 480 mm/an
- Type of soil: clay loam (Argilo limoneux)



GENERAL OVERVIEW

- ◆ 200 ha farm (arable land).
- Conventional farming- intensive tillage (plough). -
- Cereals and cattle oriented farm
- ▶ 50 "Tarentaise" cows producing an average of 3,600 liters per lactation.

GENERAL OVERVIEW

- Rain fed farming
- Family labor: The manager (10 hours per day)
- 160 hectares private property and 40 ha rented from family members
- An occupancy rate of 100%, no fallow.
- Integrated Production System: Cattle and crops

Cropping system: 2 rotations

- First rotation on 180 ha: 50% durum wheat and 50% legumes (most frequently beans) as a rotation crop
- Second rotation of 20 ha: 50% durum wheat and 50 % crop forage (usually hay: oat vetch) as a rotation crop.

Note: Use of manure in the second rotation

Yields

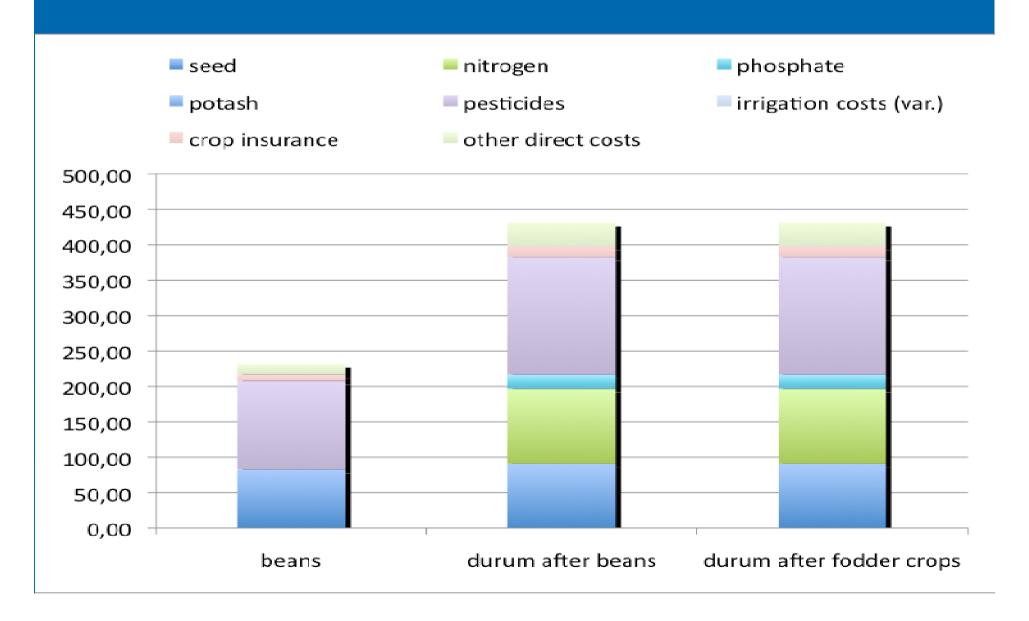
A- Crops

Rotation Durum wheat/beans	Yield/ha
Durum wheat	3,5 tons
Beans	2,0 tons
Rotation Durum wheat/hay	Yield/ ha
Durum wheat	3,5 tons
Hay	36 tons

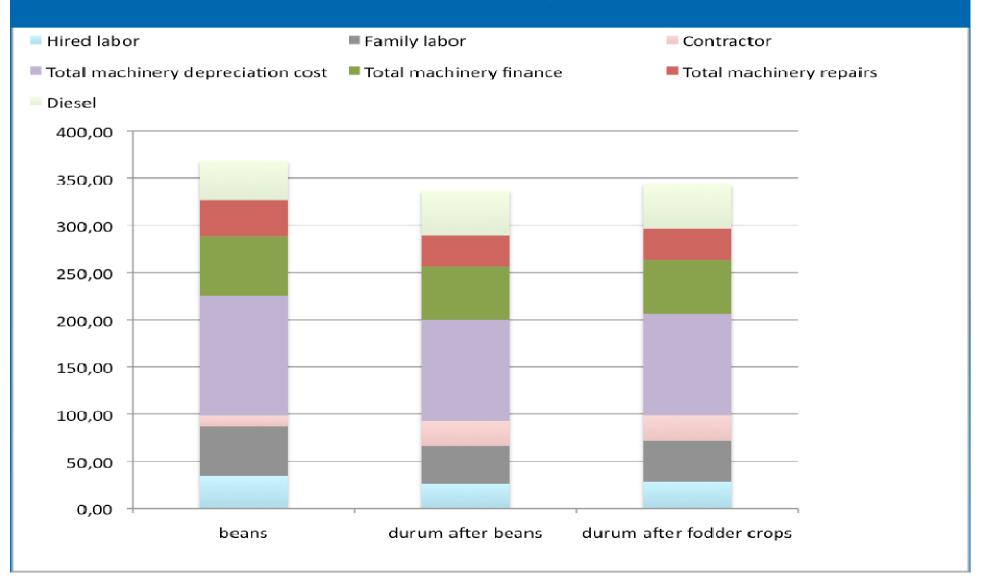
B- Livestock

Milk production	Veal
12 liters * 300 days * 0.580	1 veal per year, or 600
TD/liter, or 2088 TD/an	TD/an

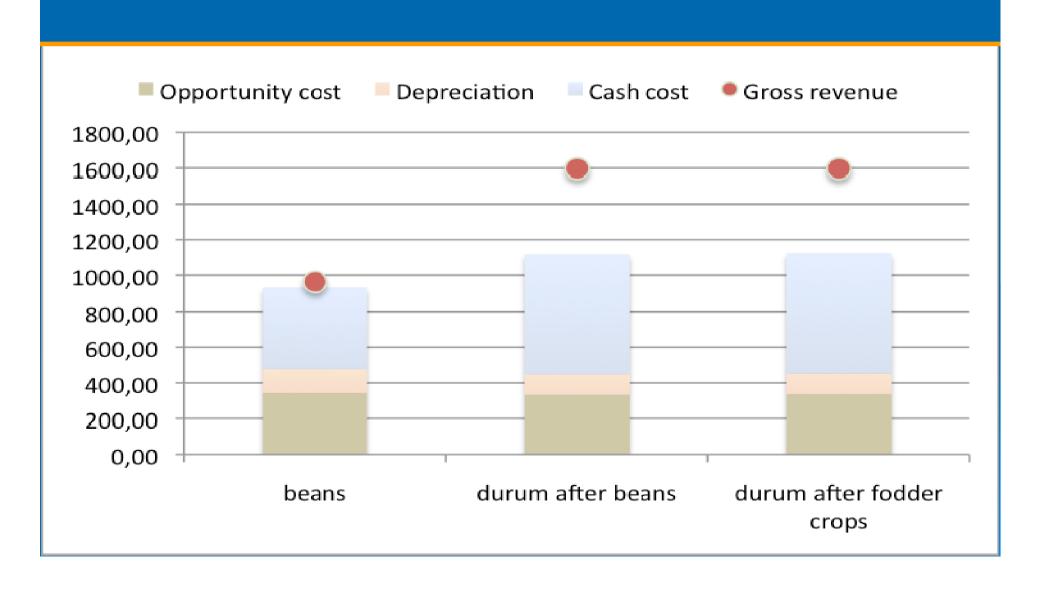
Direct cost in USD per ha per crop



Labor and machinery cost (operating cost in USD per ha)



Total cost including opportunity cost and depreciation VS gross revenue (market revenue plus eventually direct payment) in USD per ha



Composition of cash cost in USD per ha

