



Sustainable Precision Agriculture
Research and Knowledge for Learning
how to be an agri-Entrepreneur

PORTUGAL

QUINTA DA CHOLDA

BUSINESS MODEL CANVAS
in the field of SUSTAINABLE
PRECISION AGRICULTURE

STUDY CASES COLLECTION



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QUINTA DA CHOLDA SA



Address: Quinta da Cholda, 2150-066 Azinhaga do Ribatejo, Golegã

Founding date: 1987

Extension: 500 ha for corn and 1700 ha for forest

Crops: Corn and forest

Number of employees: 10 permanents

Contact

Name: João Coimbra

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Date of the interview: 2 October 2018

Name of the interviewed person (specifying his/her role in the company): João Coimbra, administrator and Nuno Tomé, technician

Name of the interviewer: Manuela Correia and Luís Paixão

INFO PA introduced

What kind of PA innovation was introduced in the company? (see WP1 Questionnaire for farmers Part I – I.2)

Variable Rate Technology (VRT).

When? 2016.

Why? What was the motivation / problem to solve?

To spread nutrients in a non-uniform way.

How did you learn about these new technological solutions?

From literature and internet.

Have you been supported / assisted / trained by someone?

No, they learned by themselves.

BMC - report



Value Proposition

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Corn.
- Forestry products.
- Electricity.

Quinta da Cholda produces high quality corn. Forest products are eucalypt wood and cork. Electricity is produced through solar energy.

In the scope of Precision Agriculture (PA), Quinta da Cholda produces information and knowledge, mostly for internal use

Customer Segments

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Corn is for agri-food industry (livestock and human). The customer is a distribution company that also exports. Since this is high quality grain, they are starting to reach baby-food market.
- Forestry products are for paper industry (eucalypts) and for stoppers since the cork is of high quality.
- Energy market has only one purchaser in Portugal

The application of PA technology doesn't bring advantages for selling corn, but it can bring, in the future, a preference advantage. Buyers may prefer a producer that applies PA methods rather than others who don't.

Quinta da Cholda provides information to several service supplier enterprises and exchanges it with services or discounts.

Distribution Channels

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- There is a partnership with corn customer. This company also provides technical support to corn production and evaluates quality along the campaign.
- Customers are responsible for transporting corn production.
- The transport of forest products is carried out by service providers.
- Customers were reached by personal contact and right now Quinta da Cholda doesn't need new customers

Customer Relationship

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- For corn and forestry products, there is a personal relationship with the customers.
- The energy market has a more impersonal relationship.

Revenue Streams

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- The corn maximum price is set by the market and the quality doesn't make a great difference. The payment is deferred.
- European Union and national funding are important incomes.

- Corn and forestry products prices are set by the market each year. The energy price is fixed and set by a period of 15 years.
- Scientific partnerships in research projects are an income.
- Profits can be increased by PA, because it can raise productivity and reduce costs.

Income is variable each year, due to cork production. However, about 64% of the company income comes from corn, 9% from cork, 10% from eucalypt and 17% from energy. The farm has another small incomes

Key Activities

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- For corn, cultural operations and resources acquisition are the key activities.
- For forest, the main activities are operations to reduce fire risk and waiting time since plantation until trees to grow.
- For energy production the key activities are related with the initial investment in equipment and in maintenance. Besides, you can only sell energy if you buy it

Using PA changed the whole production process.

Key Resources

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Physical key resources are land (the most important), water supplies like dams, water holes, water distribution network and permanent cultures.
- Financial key resource is the capability to invest.
- Human resources are a capital gain to this enterprise and a very important asset because they have the training and they are permanent workers.
- Another key resource is the right to receive funding, which is given for owning land, even if it is rented.
- With PA techniques Quinta da Cholda can gather and analyse data, establish information networks and collect information to build models that may be, in the future a key resource.

Key Partners

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Suppliers also are partners and they exchange services by knowledge and data.
- Forestry products buyers are also important partners.
- The company buying corn is a partner both as a customer and as a supplier.
- Technical support is acquired to partners, for corn production.
- Another key partner is an enterprise that deals with government issues and has a connection to a NGO for environmental questions.
- The company that supplies energy equipment is also a partner, providing

equipment in exchange for support to project elaboration.

- A consulting company in PA gives technical support and receives new clients recommended by Quinta da Cholda.
- The company that performs the cultural operations and gives informatics support is another key partner.
- Quinta da Cholda also provides consulting services through international partnerships, using data they collect

Cost Structure

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- From the most to the least important costs, we have raw materials, external services and human resources.
- The company is cost driven, but they are trying to add value through the production of corn for human food and popcorn.
- The highest is depreciation cost because equipment is a big investment.
- They have economy of scale because sowing large areas reduces costs.
- PA equipment is more expensive (about 10% more) than conventional equipment, human resources must have training to use it and more time is spent on management tasks. So, PA raises costs.

IMPACT ANALYSIS



