

Camelina processing: experience in Italy

Problem

Camelina is a new (or rediscovered) crop for Italian farmers and there is no experience in post-harvest and processing operations. At the same time there is the need to build a value chain for the oil, in order to be able to use the by-product, cake, as animal feed.

Solution

Cold pressing of organic camelina seeds, with the production of crude oil and cake (Figure 1).

Benefits

Regional production of Camelina cake, to be used as animal feed. A new crop to be included into Northern Italy crop rotations, fitting organic farming practices and diversification needs. A high value product, oil, for use in food, cosmetics and nutraceuticals.

Practical recommendation

Camelina from organic cropping systems, in the Northern Italy environment, is sown in October and harvested in May/June. At harvesting time two types of problems can occur: a) weed pressure is high and it is hard to separate the small camelina seeds from other plant material; b) if harvested in wet weather condition a high moisture content can cause storage problems.

For high quality products, oil and cake, the following key points from harvest onwards should be considered:

- if possible wait for a dry week to harvest (*Camelina siliqua* – seed pods – do not open easily)
- if available use a harvester for alfalfa seed, otherwise use a combine harvester for wheat at low speed and, preferably, with straw separation
- if there is a high presence of other materials select the product with sifters and, if available, with optic tools
- if the seeds have a high moisture content, dry immediately, to avoid fermentation processes that reduce the quality of the seeds and, as a consequence, of the oil and cake
- oil extraction by pressure and at low temperatures preserves all nutritional components (tocopherols etc.) valuable for feed, food, and cosmetic use.

Applicability box

Theme

Layers, Pigs, Processing and handling of harvested feed

Context

Northern Italy

Application time

From harvesting (end of May/beginning of June) and afterwards

Required time

Depending of machinery available

Period of impact

May/June for harvesting and post-harvest conditioning, processing can be done anytime

Equipment

Oil press

Best in

Poultry, laying hens, pigs



Figure 1: Camelina cake. Photo: Cristina Micheloni, AIAB.

Further information

Video

- Check the video "[Cultivation, processing and use of camelina for organic layers feed](#)"

Weblinks

- Check the [Organic Farm Knowledge](#) platform for more practical recommendations.

About this practice abstract and OK-Net EcoFeed

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