

For several reasons, cattle feed may have to be bought to supplement those supplied by the farm's own pastureland:

- An imbalance between herd size and available pastureland: such an imbalance should not exist or should be minimal in farms managed according to agroecological parameters. In the specific case of the Vista Alegre farm there is still a certain imbalance of this type. There are three possible ways of overcoming this situation (a) to reduce herd size, (b) to increase the amount of land run by the farm (the fact that it is extremely difficult to gain access to more farmland -in this case, pastureland- makes this solution well nigh impossible) and (c) to continue to import feed supplements but minimising the negative impacts of this option.
- Lack of land suitable for cultivation: it should be noted that there are dairy farms in the Basque Country that produce their own supplementary feed: maize, peas, field beans or barley, for example. However, very little of the land run by the Vista Alegre is arable, due to climate conditions (precipitation is a very limiting factor as it hinders the use of farm machinery) or geomorphological reasons (almost none of the farmland is flat) for example, and thus cultivating forage crops is not an option that would be appropriate from an agroecological point of view.
- As a result there may be an insufficiency of certain elements in the herd's nutrition. Specifically, should a farmer aim to for high milk yields, cows require large energy and protein inputs. Given that cows can only eat a certain amount per day, forage alone cannot provide such amounts of energy and protein, and thus different amounts of concentrates are added to a cow's daily feed ration according to the amount of milk to be produced.

However, the sole objective of maximising milk yield per cow is not compatible with an agroecological approach to dairy farming given that, as mentioned above, the aim of such an approach is to simultaneously fulfil a variety of objectives (such as optimum milk quality, a balance between livestock farming and the environment so as to be sustainable, etc) and so livestock feeding regimes cannot be based mainly on supplements, but rather these should be minimised and the use of local forage maximised. As such it is recognised and accepted that cattle fodder based mainly on the use of local forage (grazed or harvested from a farm's own fields) will give less milk per cow in terms of litres (but, on the other hand, it will have a positive influence on milk quality, see section 3.4). Any supplement used would aim to compensate the nutrient deficiencies of a given farm's pasturelands: in the northern coastal area of the Spanish Member State ("Green Spain" or the "Cornisa Cantábrica"), such deficiencies are most mainly related to insufficient energy content, sometimes insufficient protein content and insufficient phosphorous and magnesium.

Cornisa Cantábrica

## 2.9- Feed supplements in dairy cow feeding regimes:

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concentrate (barley and soy)



Barley	2430.0
Phosphorus (g)	38.0
Calcium (mg)	0.43
Molasses (g)	0.065
Ascorbic acid (mg)	0.016



Barley



