Valdibella

Biodiversity paper

Introduction

Agriculture in general can only aim for the common good. This is one of our core beliefs. Its role is too important: to produce the food on which everyone's life depends. Food that is made through the use of land; in fact, most of the planet's surface is occupied by agricultural activity.

All this makes the role of those who intend to practice this profession full of responsibility particularly important. Leaving agricultural practice only in the hands of purely economic logic is very risky and inevitably leads to the loss of those principles which should instead be inspired by. We farmers in Valdibella are fully aware of this and carry out a sustainable and environmentally friendly agricultural method based on the most ecological methods possible.

We are also convinced that producing in this way allows us to obtain not only healthy food, but at the same time richer and tastier food.

The soil

Only from a natural fertile soil can we obtain healthy plants and fruits rich in nutrients. To achieve this result, the soil must be respected and treated truly as a living organism. We can compare the soil to the intestines of animals, including humans, where decomposition and the new synthesis of substances that will serve to nourish the entire physical and mental body takes place. Much of the proper functioning of the intestine depends on the balance and wealth of the microorganisms that occupy it, the so-

called microbiome. The same thing happens in the ground. Here too, proper functioning depends on the wealth, quantity and biodiversity of the organisms that populate it. It is from the activity of microorganisms that soil fertility depends (their metabolism and from the dense network of their established interrelationships). They produce nutrients which are then assimilated by the cultivated plants.
However, reckless agricultural activity, which does not take this copious microbiological activity into account, can destroy soil fertility. Repeated and deep workings, weeding, herbicides and chemical fertilisers interfere negatively on the life of the soil, making it an inert mineral, without structure and without life. What kind of food can we get from dead soil? Clearly a food without vital substances and nutrients.
Aware of this danger, we are keen to work with the objective to obtain a natural fertile soil. First of all, we have eliminated soil tillage. We nourish our soil and the life it contains through the green manure of mixtures of plants mainly leguminous. These plants are sown early immediately after the harvest and then left undisturbed until the following spring, when they are cut and shredded together with the pruning branches and left to cover the ground throughout the summer. Periodically, especially in heavier soils, we add crushed rocks from a small local quarry. These are rocks that mainly contain calcium sulphate and raw chalk. In this way a better soil structure is obtained and also it rebalances the pH, which improves the vitality of the microorganisms present.

The foliage of the vines

The foliage is all the green parts that develop every year from the branches that produce fruit. Management of the foliage helps maintain a balanced structure to the vine, significantly reducing the need for external interventions consequently improving the health of the grapes. For this we pay great deal of attention to green pruning. Green pruning describes, selecting and reducing the number of shoots to match the "strength" of the vine, balancing the vine like this improves its strength and health, keeps it in balance with the soil and is respectful of overall natural equilibrium of the countryside.
Immediately after green pruning we proceed with the reduction of the basal leaves. This allows for greater ventilation of the leaves which reduces the attacks of powdery mildew and moths. Thanks to this

management, we have reduced sulphur treatments to a minimum to control powdery mildew and completely eliminate the use of pesticides (including natural ones) to control moths. But the dry Mediterranean climate also comes to our aid: we have no particular difficulties with late blight (the main adversity in many winegrowing areas). We proactively control it, that we intervene when climatic conditions could allow its development. In such cases we only use copper.

We act in the spring phase and on particularly sensitive varieties. Generally we intervene this way two or three times in a year, but in some vineyards we only intervene once preventively. For some years now we have used plant extracts as a strengthening agent, the plant extract stimulates the natural defences of the plants. Meanwhile through the use of finely ground agricultural chalk we can reduce and eliminate completely the use of sulphur. The chalk is a natural mineral with low environmental impact that comes from a local quarry. Its use does not alter the equilibrium of the vineyard and ecosystem. Always with the intention of making our vineyard as balanced as possible. We have started to make our own organic fertiliser. Organic vegetables (and sometimes fruits) can be fermented for a long time, one year for agricultural use (but if left longer it is possible to produce it for human use) to create an organic fertiliser. In our case, we used vegetation known for their medicinal properties: Equisetum (horsetail plant), sumac, eucalyptus, burdock roots and plantain. At the end of the process, the liquid obtained is rich in the plant extracts and the microorganisms that carried out the fermentation. It has a good taste and acetic odour and, correctly diluted, it will be sprayed on the leaves and in the soil. In this way we enrich soil and leaves with beneficial microorganisms, increasing the microbial biodiversity, thusly we reinvigorate and revitalise our plants.