

ANCHORS

The second system to secure the head pole is the anchor, constituted by an element driven into the ground, in the external side of the row (in line with it), and by one or more wires. If this system is proportionate to the height of the head, the stresses of the wires and the nature of the soil, it guarantees the best and durable stability.

A drawback is given by the space occupied in the service road, which can be avoided by planting a vine. The types of anchors offered are still many, each one with characteristics that have to be considered according to the soil, the structure to be supported and the stresses placed on it, such as wind and vibration of the machineries, particularly the harvesters.

They are:

_ stones or bricks fixed together with a galvanized iron wire: this is the most ancient solution, sometimes still used today. The difficulty lies in finding the central position of the wire in tension;

_ concrete casting in a hole provided with an iron rod for fixing the anchor wires: it is a system that provides excellent resistance, because the concrete casting melts very well with the unstirred ground, but, in addition to the high cost for the implementation, it has to be considered another one for removing the concrete block during the removal of the vineyard;

_ plate of reinforced concrete with iron bars and an external hook for the passage of wires. Originally the iron was left embedded in the concrete, while today, for transportation reasons, it is better to have two independent parts;

_ element of molded reinforced concrete with a different shape, like a marine anchor, with iron eyelet for fixing the iron wires;

_ anchor to be screwed into the ground, made of iron or stainless steel. The advantage derives from the fast implementation which can also be mechanized. The anchor of stainless steel is made with thin sheet metal and support, it shall be put in place by a specific wrench;

_ anchor with a horizontally pivoted element: it derives from a French proposal and it is now marketed and manufactured in Italy. The spike is driven into the ground with a specific support and then the anchor wire tends to bring the gear in a transverse seal position;

_ spring system: it consists of an iron pipe driven into the ground, then three iron springs are introduced and, under the blows of the hammer, they widen, deeper, providing a tight seal. Anchors such as this and the previous one, which are placed in the ground for piling without the prior

excavation of a hole, can be easily implemented even in stony grounds;

_ double head pole: this is a more expensive solution, but with excellent stability requirements and it does not occupy the area dedicated to the service road. In addition, the wires traction is distributed on the two supports, making the head pole particularly resistant even in case of strong forces such as gusts of wind. The double pole is often used for GDC growing system, structured with the internal support provided with bilateral supports of the wires that join together and are tightly fixed on the first strand.