

CROTALARIA

Crotalaria Juncea

Family: Fabaceae or leguminosae.



Land Preparation: The soil must be prepared in such a manner that favors an adequate settlement of cultures, by using either appropriate equipment in the right period, taking into consideration that land preparation is one of the most important aspects for germination. Loose soil must be obtained, which will allow us to have an adequate sowing depth.



Sowing and settlement: A piece of information that must be taking into account is the sowing surface, the adequate surface must have 1 cm of soil depth.

- The use of a cultipacker improves the quality of sowing in relation to the uniform acceleration of the seeds' germination.

Settlement must occur when the luminosity and temperature are adequate for germination. It usually coincides with the minimum temperatures above 10 Celsius degrees.



Risk: Water is necessary to produce germination. When seeds are hydrated with the soil's moist, they absorb water. That's the starting germination process.

Aspersión risk:

- Germination risk, for the amount needed to make soil's moisture uniform, taking into consideration weather factors (wind, the soil's type and texture, land's orography). Providing enough water in order to gather the land's moisture with a high water volume with the purpose of avoiding "cooking" problems, due to high temperatures on the date of implanting, avoiding ponding at all times.
- Subsequent risks: taking into consideration weather factors (wind, type and texture of soil, land's orography), we must supply a weekly irrigation of around 20 liters per square meter. Applying a maximum of 150 to 170 liters per square meter in the full culture cycle of 6 to 8 weeks.

Flood or walking irrigation

- First irrigation, germination: with this type of irrigation, the use of a cultipacker becomes even more important in order to prevent a possible dragging of the seed.
 - Second irrigation, half cycle: this must be provided when the culture is in the half of the cycle, taking into consideration that the mean cycle has 7 weeks, we refer to the 25th day from sowing.
Higher numbers of irrigation are not advised, given that their radicular system is very pivoting, thus cutting the Crotalaria's water absorption obtained from the soil.
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Green or fodder fertilizer:

- **Green fertilizer:** Incorporate the soil in the beginning of flowering in order to take advantage of its potential for the fixation of nitrogen in the soil, thus avoiding the apparition of seeds for their correct incorporation. The organic matter provided is easy to mineralize. **We advise to use together the seed and the inoculant in order to potentiate their nitrogen fixation action.**

For instance, in order to culture vegetables after Crotalaria, they must be incorporated to the ground during the 60 days following the incorporation of Crotalaria in the soil. This practice guarantees the sufficient decomposition of Crotalaria.

- **Foddering:** Saw at the moment of flowering, the flowering percentage of the plant will be directly proportional to the hay's protein percentage. With a low flowering percentage, protein percentages will be high. Hay must arise from the moisture necessary to keep a higher quality level, quality will be subjected to the leave's protection.



Weed control: The Crotalaria juncea is of the fabaceae families, which implies its inclusion as broadleaf culture.

Narrowleaf weed control: weed control in narrowleaf might be carried out before sowing using any selective herbicide found in the market.

Broadleaf weed control: In the case *Crotalaria Juncea* in a broadleaf culture we must take many precautions when choosing the herbicide to protect broadleaf. Exclusively as tested herbicides we may recommend in pre-emergency cases Stom Aqua (Pendimethalin 45,5%) in a dose of 1.5 liters per hectare. The correct application must be carried out with a seed that had been implanted in the soil and subsequently for its application by carrying out a light irrigation in order to deliver perfect action.



Fertilization: It is worth mentioning that the *Crotalaria juncea* is one of the legume families; therefore, having an intrinsic capacity for the fixation of nitrogen in the soil, an action that is carried out by receiving CO₂ from the atmosphere and transforming the same into nitrogen through the fixation of the same in its roots. The fixation of nitrogen, as well as the creation of organic material and the reduction of the nematode population in the soil are their main characteristics, which make the *Crotalaria juncea* a green fertilizer used internationally.

In its fodder use, in which the purpose is to obtain the best possible performance, in order to obtain the highest fertilizing production, as all other cultures, which must be taken into consideration.

Recommended fertilizers: Phosphor, nitrogen and potash must be kept in an optimum state, as the same are macroelements that are related to the growth of vegetable species. We recommend fertilizers not rich in nitrogen and with high phosphor and potash levels.



Diseases: The *Crotalaria juncea* might be sensible to insect plagues, such as beet armyworm, caterpillars or polyphagus insects, if these were present in the *Crotalaria* culture, we must try with an insecticide containing pyrethrin, a systematic insecticide that might be found regularly in stores.