

SoildiverAgro project

Adoption of new management practices to increase crop production and quality



THE WHAT AND WHY

Management recommendations for optimising the planting of *Solanun sisymbriifolium*

The implantation of *Solanun sisymbriifolium* in A Limia (Galicia) was studied as a function of two main parameters such as planting date and depth and two auxiliary parameters such as soil compaction and irrigation. A seed rate of 20 kg/ha and three sowing depths of 5 cm, 10 cm and 15 cm were used for planting. The two sowing dates were 4 and 28 June. The planted area for each of the main parameters was divided to subject one half to soil compaction by rolling with a metal roller and applying irrigation. On both planting dates, soil moisture was 20 % up to the third planting depth. The best results were obtained with an average planting depth of 10 cm, while shallow planting does not give an acceptable result in this type of soil. In addition, most of the seeds planted at the first planting

date showed weak vegetative development and were not able to reach optimum development. The use of a packer roller favours nascence and plant development. As far as temperature requirements are concerned, it is only when the maximum temperatures are above 25°C that the plants grow adequately. The practice of irrigation does not seem to influence either the nascence or the growth of the plants, but correct soil moisture is necessary for germination. In fertile soils rich in organic matter, however, it is necessary to establish a protocol to control weeds, especially *Chenopodium*. The appearance of other traditionally undesirable plants, such as *Solanum nigrum*, would not present a problem as these plants would perform a similar role to *Solanum sisymbriifolium*.



1. *Solanum sisymbriifolium* plants.



2. Compaction work during sowing.

KEYWORDS

Solanum tuberosum, trap plant, planting date, depth, soil compaction, irrigation.

AUTHORSHIP

Laura Meno Fariñas, Universidad de Vigo (UVigo), Vigo, Spain.
David Fernández Calviño, Universidad de Vigo (UVigo), Vigo, Spain.
Servando Álvarez Pousa, Inorde, Ourense, Spain.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 817819

This factsheet is produced as part of the SoildiverAgro project. Although the author has worked on the best information available, neither the author nor the EU shall in any event be liable for any loss, damage or injury incurred directly or indirectly in relation to the project.