

# DATURA sp.

## as a potential risk for agricultural production in BELGIUM

### Survey

August 2020 -  
July 2021

155 Belgian farmers participated in the survey

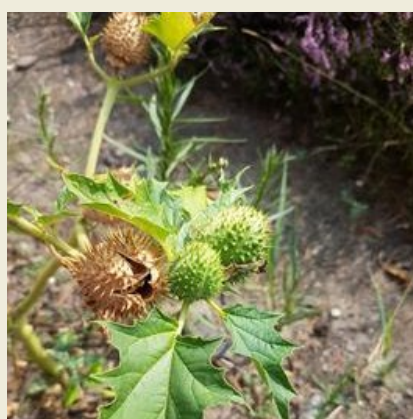
The number of respondents from Flanders and Wallonia was balanced, and 1.5% of participants was located in Brussels Capital Region.

51% of the respondents is aware that *Datura* sp. poses a risk for human consumption

24% considers that *Datura* sp. competes with the agricultural crop

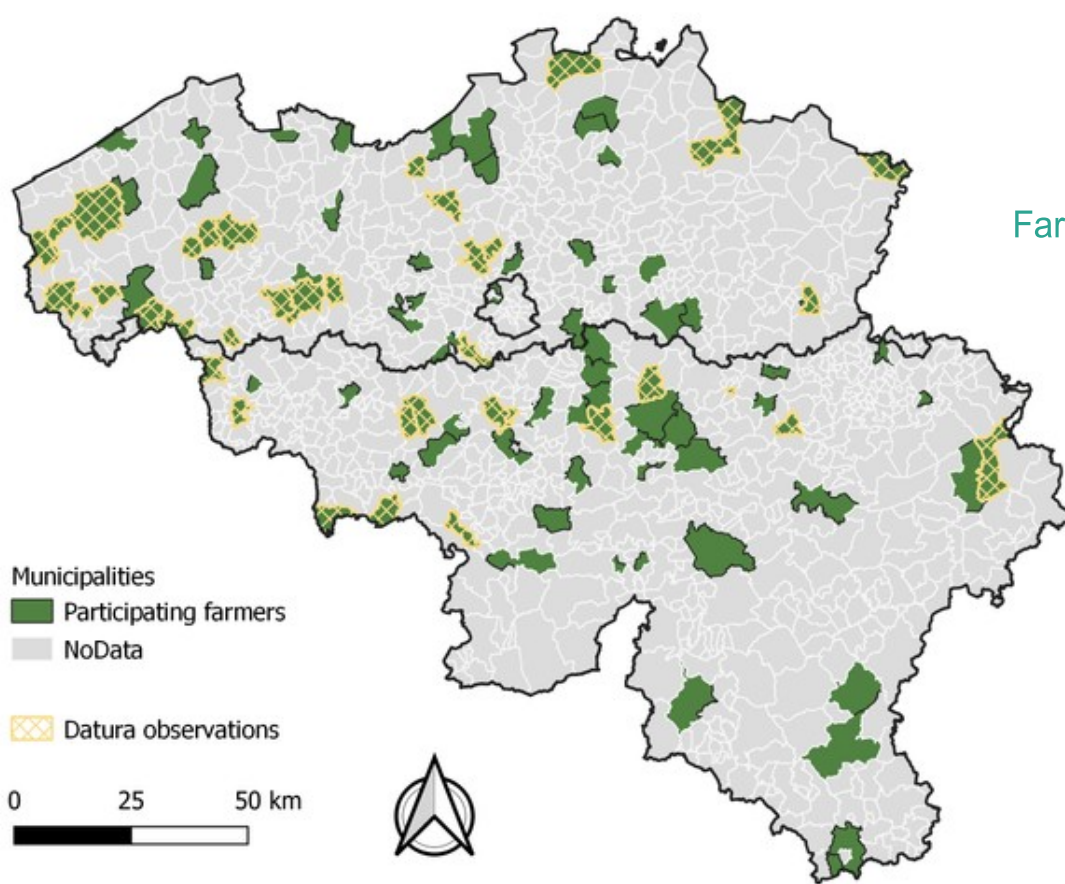
14% indicates that *Datura* sp. complicates harvesting

18% finds that *Datura* sp. decreases the quality of the end product



Photos from <https://waarnemingen.be/species>

## *Datura* sp. observations in the agricultural fields



### Farmers observed *Datura* sp.

at the edge of the field and as spots in the middle of the field. It is also observed next to streams, gardens, prairies and open spaces where birds (for example, chickens) are kept.

### Farmers practices against *Datura* sp.

One third of farmers does not apply a specific treatment and some apply either chemical or mechanical weed control.

As a local treatment MANUAL REMOVAL of the plants (including the removal of roots) was reported and it can be seen as the most effective.

The best results are obtained when the entire plant is removed from the field at the moment before seeds are present. Consistent manual removal of *Datura* sp. over multiple years decreases the load and the plant disappears entirely from the field.

*Datura* sp. was seen more often in pastures (28%), potato fields (16%), corn fields (15%) and grains/legumes (11%). These fields are recommended to be controlled more often.



### Geo-located observations of

*Datura stramonium* by nature study groups show a steady increase over the last years. Most observations are recorded in June and July. Majority of observed areas are related to the man-made landscapes and agricultural areas, and only minority of the observations (12%) is located within agricultural fields.

*Datura* sp. was less present when farmers applied mechanical control or used compost and worked on biocertified fields.

## Risk management related to *Datura* sp. presence in agricultural crops

A variety of plants, like thorn apple (*Datura stramonium*) and belladonna (*Atropa belladonna*) produce toxins, called tropane alkaloids (for example, atropine, scopolamine). These plants or their seeds can contaminate agricultural crops.

The ultimate presence of tropane alkaloids in foodstuffs is undesired as these toxins pose a risk due to a number of adverse effects on heart rate, respiration and functions in the central nervous system. Therefore, maximum levels of those toxins in foodstuffs are set in Commission Regulation (EU) 2023/915. The foodstuffs such as processed cereal-based foods and baby foods, unprocessed grains or pseudocereals like millet, sorghum, maize, buckwheat, and some herbal infusions may contain tropane alkaloids. These foodstuffs may be placed on the market only when levels for atropine and scopolamine are lower than the maximum levels laid down in the legislation.