

FRENCH SUGARCANE EXPERTISE



VISACANE A SAFE WAY TO TRANSFER VARIETIES



Visacane's greenhouse

For sugarcane, quarantining is the safest way of importing/exporting varieties between producing countries without the risk of spreading diseases. Visacane, Cirad's sugarcane quarantine service, is located in Montpellier, in southern France, outside any sugarcane production area, and is part of a plant pathology research unit. Visacane offers a comprehensive service for supplying international varieties: a wide origin of varieties, disease-free status and respect of plant breeders' intellectual property rights.

DISEASE-FREE STATUS

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Depending on the geographical origin of the sugarcane varieties, Visacane will detect the local viruses and bacteria responsible for major sugarcane diseases, generally considered as quarantine organisms (see table below).

Special emphasis is placed on latent diseases, when plant infection often does not induce visible symptoms. Visacane is constantly improving its detection tools.

- *Xanthomonas albilineans* (Xa): leaf scald
- *Leifsonia xyli subsp. xyli* (Lxx): ratoon stunting disease
- Sugarcane yellow leaf virus (SCYLV): yellow leaf
- Sugarcane mosaic virus (SCMV): mosaic
- Sorghum mosaic virus (SrMV): mosaic
- Sugarcane streak mosaic virus (SCSMV): streak mosaic
- Fiji disease virus (FDV): Fiji leaf gall
- Sugarcane streak virus (SSV), sugarcane streak Reunion virus (SSRV), sugarcane streak Egypt virus (SSEV): streak
- Sugarcane white streak virus (SWSV)
- Peanut clump virus (PCV): red leaf mottle
- Ramu stunt virus (RmSV): Ramu stunt
- Phytoplasmas: grassy shoot and white leaf
- Some maize viruses (mastrevirus and polerovirus)

Recently, three new, potentially pathogenic sugarcane viruses (2 mastreviruses and 1 ampelovirus) were discovered and studied to improve diagnosis. Whenever possible, diseases are eliminated by long hot water treatment, or by meristem culture. The Visacane quarantining process takes 2 to 5 years to guarantee the disease-free status of varieties.

COMPLIANCE WITH BREEDER'S RIGHTS

Visacane offers more than 150 varieties each year, of which about 30% are new varieties that have completed the quarantine process. These varieties are made available to the sugarcane estates and the variety breeding stations.

- International varieties free of rights can be supplied to all users for testing.
- Elite varieties are covered by licensing agreements with the plant breeder.

With appropriate contracts, Visacane guarantees that all variety transfers protect the intellectual property rights of the breeders.