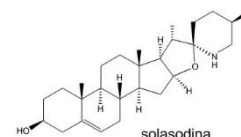


#13G-18

Natural progesterone from *Solanum sisymbriifolium* Lam., source of alkaloids and steroidal saponins.

Progesterone is a relevant input for human and animal health as well as herd management. **In human health**, progesterone is administered during assisted reproduction treatments, hormone replacement therapy during menopause and risk of abortion. **In livestock breeding**, this **hormone enables the synchronization of the reproductive cycle in herds**.

S. sisymbriifolium is an endemic weed from South America, frequently found in the central and northern regions of the country, and it produces **steroidal saponins such as solasodine, a substrate** for progesterone synthesis.



ADVANTAGES:

- **Low cost for mass production of hairy root lines.**
- **No deregulation is required for the crop production process.**
- **Installed-capacity for alkaloids and steroidal saponins production.**
- **Reduction in herd management costs.**
- **Pregnancy rate increase.**

TECHNOLOGY READINESS STATUS:

Optimized *in-vitro* cultivation of *S. sisymbriifolium*. Advances in the transformation with *Agrobacterium rhizogenes* to increase root growth capacity and solasodine production.

DNA de Vinculación Tecnológica y Relaciones Institucionales - National Coordination Office for Technological Cooperation and Institutional Relations, INTA
 Intellectual Property Department-Technological Antenna
 Dr. Mariana Nanni nanni.mariana@inta.gob.ar



Ministerio de Agricultura,
 Ganadería y Pesca
Argentina