

Parasitic Striga Germination Inducer

Background:

The parasitic plant *Striga hermonthica* causes damages to the crops like corn, rice, and peas/beans in Africa, Asia, U.S. and Africa. The damage is worth \$10 billion only in Africa. Dormant seeds of *Striga* recognize proximity to the hosts by detecting the plant hormone strigolactones (SLs) exuded from the roots of host plants and initiate seed germination.

Technology Overview:

Nagoya University researchers have screened more than 10,000 small molecules and finally identified a few molecules that induce *Striga* germination. Functioning as mimics of SLs, they induce *Striga* “suicide” germination under the circumstance that there is no host plant nearby. Without host plants, germinating *Striga* seeds will not survive. Researchers have also identified a few small molecules that inhibit *Striga* germination.

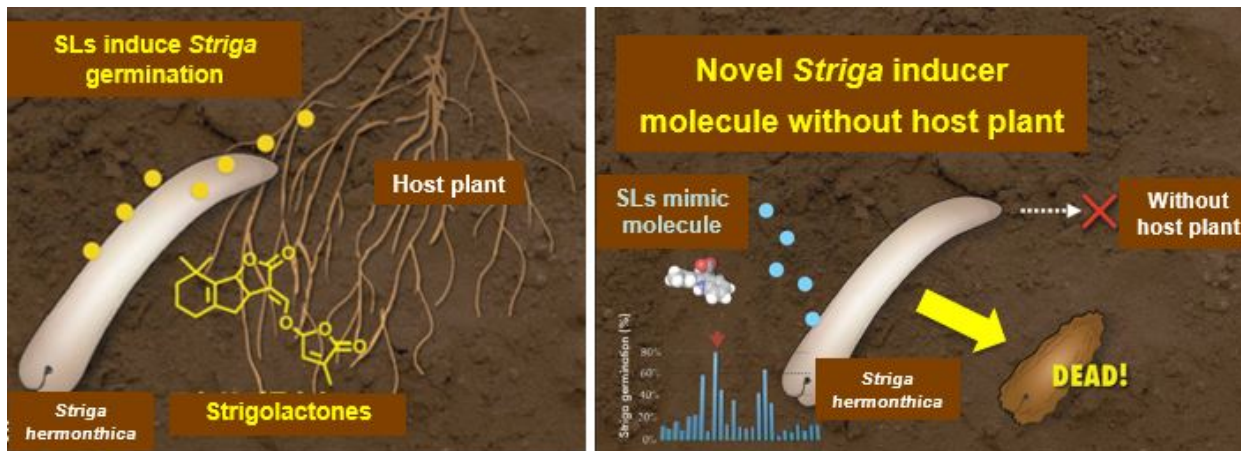


Figure 1: SLs mimics induce *Striga* suicide germination with no host plant nearby.

Benefits:

Cheaper (\$1/g) than other *Striga* inducers and very stable in a solvent.

Potential Applications:

To kill *Striga* before planting in the field.

Contact

Rena Shimizu, Ph.D., TEL: 919-535-8724 Email: rshimizu@tpnu.org

Technology Partnership of Nagoya University, Inc.

One Copley Parkway, Suite 305, Morrisville, NC 27560