**Name of the technology** : **Integrated management of *Orobanche* in FCV tobacco**

Year (s) of development : 2011-2017

## Technology details

A review of literature on control measures of broom rape indicates that there is no single consistent, effective and economical method for complete eradication of broomrape infestation in tobacco. Therefore, the only effective way to combat weedy root parasite like *Orobanche* is through an integrated approach, combining a variety of measures in a concerted manner.

In Vertisols lower infestation of 1.7 % at 75 days and 14.3% at 100 days was recorded in two year rotation of sorghum preceding tobacco. In two year rotation of sesamum preceding tobacco 2.7 % and 18 % infestation at 75 and 100 days after planting respectively was recorded. Hand pulling for three years continuously also reduced the infestation in solo tobacco. In highly infested fields of Orobanche in tobacco integration of trap crops of sorghum or sesamum rotation for two years with hand weeding is recommended for Orobanche management in Vertisols.

In different field trials in alfisols only 2 %*orobanche* infestation was observed in tobacco grown succeeding kharif grown sesamum with neem cake application to tobacco at 30 days after planting @10g per plant followed by hand weeding.

Sesamum trap crop

Sorghum - Tobacco

Control plot

## Impact of the technology

There is saving of labour 70 mandays per hectare with this technology as two times weeding can be avoided with integration of 1. Summer ploughing, 2. Growing sesamum in kharif ,3.application of 10g neemcake perplant and 4. One hand weeding to reduce the infestation of Orobanche in FCV tobacco in alfisols. In Vertisols trap crop rotation (sorghum/sesamum) with hand weeding is recommended for management of Orobanche.

## Publications/commercialization


- ICAR-CTRI Annual Reports 2016-17 & 2017-18.
- S. Kasturi Krishna, S.V. Krishna Reddy, T. Kiran Kumar and V.S.G.R. Naidu 2022. Effect of trap crop rotation cycles on broomrape infestation in FCV tobacco. Tobacco Research 48(1): 23-29.


## Investigators/Developers

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