

**PURPLE NUSTEDGE (CYPERUS ROTUNDUS L.)  
CONTROL THROUGH CLIMBING LEGUMES SUCH  
MUCUNA PRURIENS L. AND LABLAB PURPUREUS L.**

**Dambiro, J<sup>1</sup>., Kassam, A<sup>2</sup>. & Basch, G<sup>1</sup>.**

<sup>1</sup> Evora University, Portugal, [jdambiro@gmail.com](mailto:jdambiro@gmail.com)

<sup>2</sup> University of Reading, UK

The adoption of Conservation Agriculture in Mozambique poses new challenges for smallholder farmers. One of these challenges is the control of perennial weeds without herbicides which is beyond the reach of this group of farmers in Cabo Delgado due to: a) High prices (low-income farmers), and b) Cabo Delgado is a remote area where affordable access to herbicides and other inputs is not yet possible. Looking for sustainable solutions according to local agro-ecological and socio-economic conditions of the region was the aim of the on-farm research carried out. The present study aimed at testing the efficiency of two cover crops, *Mucuna pruriens* L. and *Lablab purpureus* L. in the control of purple nustedge (*Cyperus rotundus* L.) in Conservation Agriculture systems. The trials were conducted in the village of Nangua, in the province of Cabo Delgado during the rainy seasons of 2014/15 and 2015/16 crop years in a field that was abandoned due to purple nustedge weed infestation. Two cover crops, mucuna and lablab, were established in 12 m<sup>2</sup> plots, in three replications. Three counts of the quantity of purple nustedge were made in these plots: 1st count, 1 day before sowing; 2nd count, 30 days after germination, and 3rd count, 60 days after germination. Before the cover crops were sown, the purple nustedge counts were made in 1 m<sup>2</sup> area in 2 sites located in each plot, during two seasons. In the first year, there was a decrease in the number of plants of purple nustedge in the plots where both legumes were grown. Both legumes showed greater efficiency in the control of purple nustedge with increase in their duration in the field mainly between 30 days and 60 days after sowing. Results show that mucuna and lablab can replace each other in the control of purple nustedge because the effect of the application of both cultures is indifferent. Mucuna and lablab usage as cover crop in Conservation Agriculture Systems favors dormancy of the bulbs and creates unfavorable conditions for the viability of purple nustedge seeds and thus decreases their proliferation capacity in field crops.