

**GK 09/12: OAT DEVELOPMENT AND SELECTION PROGRAMME
PROGRESS REPORT APRIL 2010 – MARCH 2011**

Summary

Number: GK 09/12
Title: Oats development and selection programme.
Duration: Ongoing
Status: Continuation of existing project
Project leader: Mr P Delport

Oats are a crop of Mediterranean origin: not as old as wheat and barley, but its domestication dates back to ancient times. Oats have many uses as:

- a breakfast cereal
- a feed grain
- green or conserved fodder
- more recently, as a winter cover crop in no-till rotations.

Oats rank sixth in the global cereal production statistics, following wheat, maize, rice, barley and sorghum. Oat as grain has always been an important form of livestock feed and provides a good source of protein, fibre and minerals. However, global oat grain production declined as farm mechanisation increased between 1930 and 1950. Yet oats remain an important grain crop for people in marginal economies, throughout the developing world and for specialised uses in developed economies. In many parts of the world, oats are grown for use as a grain as well as for forage and fodder, straw for bedding, hay, silage and chaff. Livestock grain feed is still the primary use of the oat crops, accounting for an average of around 74 percent of the world's total consumption annually.

Apart from yield, disease resistance is the most important trait of commercial oats. Unfortunately, the resistance levels of Crown Rust resistance in South-African oat cultivars is very low and annually put a high risk on the cultivation of this crop due to the fact that oat production is prevalent in areas known for Crown Rust such as in the Southern and Western Cape.

Therefore, the mandate of this project was to develop well adapted oat cultivars for South African cultivation conditions, with acceptable Crown Rust resistance levels.

Although the selection programme has been terminated, ARC-SGI is in the process of releasing the most promising lines as cultivars. Seed multiplication is on its way and ARC-SGI intends to commercialise two of the lines by 2012.

This selection programme will continue to select and evaluate oats lines from international nurseries to be able to release more advanced well adapted oat cultivars for the local oats industry.