



Soya beans are the oilseed crop with the most room for expansion in South Africa. The deal with Embrapa will provide new cultivars and expertise and exports.

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Embrapa

Embrapa coordinates Brazil's National Agricultural Research system, which includes both public and private entities involved with agricultural research.

Embrapa has 38 research centres, three service centres and 13 central divisions.

The soya bean research centre employs 73 researchers, of which 80% are PhD graduates. With a specialised staff of 303, it's one of the biggest soya bean research organisations in the world.

Local soya beans get BRAZILIAN EXPERTISE

A partnership between South Africa's Protein Research Foundation and Brazil's Embrapa Soy will provide South Africa with new soya bean cultivars, which could potentially lead to less imports and a shrinking current account deficit. Annelie Coleman reports.

SOUTH AFRICA'S UNDERPERFORMING soya bean industry is to benefit from Brazil's experience and extensive research into this crop.

Soya imports is one of the main contributors to the current account deficit, as South Africa imports about 500 000t of edible oil annually at a cost of R6 billion, to satisfy its need for over 1 million tons of protein for animal consumption each year.

If local soya producers were to fill this shortage, imports can cease, impacting favourably on the current account deficit. With a 2009 harvest of 58 million tons, Brazil is the world's second-biggest soya bean producer after the US. It has increased its soya bean yield from 2t/ha in 2000 to an average 3,1t/ha this year. Brazil's scientists

explain this was made possible by breeding specialised cultivars, soil management, correct planting dates, as well as by insect, nematode and disease management.

The breeding of a tropical soya cultivar which made vast tracks of previously uncultivated land viable for soya bean cultivation has also contributed greatly to Brazil's success with the crop.

Gerhard Scholtemeijer, the South African Protein Research Foundation (PRF) chairperson, says that Brazil's expertise can help South Africa double its soya bean production in five years.

"For the first time in the past 10 to 12 years, soya beans can compete economically with maize, and even overtake it," he says. "The expansion of sunflower is limited

because of its fibre content and canola is still a very new crop – production only began in 1995," says Scholtemeijer. "The PRF decided soya beans have tremendous potential, although production is still low."

"South Africa's best-ever soya bean yield was 424 000t on 240 570ha in the 2005/06 production season. The 2008/09 season looks more promising, with estimates of 450 000t from 224 750ha, or a rough average of 2t/ha." The PRF decided to look for overseas help as there are currently no state soya bean breeders in South Africa.

The PRF and Brazil's Embrapa Soy research organisation recently signed a memorandum of understanding with them to promote local cultivation of soya beans.

In the programme, Embrapa is giving seed-producing companies germplasm to incorporate into their breeding lines. Embrapa owns the cultivars produced, but the seed company has the right to sell them.

"Certain Embrapa Soy public cultivars are already available to be tested in South Africa, with others to follow shortly," says Scholtemeijer. "The plan is to test 10 to 12 cultivars with a variety of special traits, like root-knot nematode resistance, early planting, high yield, and disease and drought resistance.

"These cultivars will be in the four to eight maturity groups, and will be incorporated in National Cultivar Trials in the 2009/10 growing season. Embrapa will make the successful cultivars available for sale in South Africa."

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