



## SOYBEAN CULTIVAR RECOMMENDATIONS

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The Agronomy Section of the KwaZulu-Natal Department of Agriculture and Rural Development, the Agricultural Research Council – Grain Crops Institute and seed companies, conducted soybean cultivar evaluation trials at Kokstad, Cedara, Greytown and Dundee. These trials formed part of a national cultivar trial conducted in the major production areas of South Africa.

The trials were planted in rows spaced 0.45 m apart at Kokstad and Cedara, 0.75 m and 0.86 m at the two sites at Greytown, and 0.9 m apart at Dundee. The seeding rate was 400 000 seeds/hectare. The crops were grown under dry-land conditions and were fertilized for optimum grain yields, based on soil analysis recommendations conducted by the Cedara Analytical Laboratory. Weeds, insects and diseases were controlled throughout the growing-season.

Successful soybean production is based on:

- Fertilizing the crop according to the soil analysis recommendations.
- Thorough land preparation.
- Optimum planting period.
- Cultivar selection.
- Control of weeds, insects and diseases.

Due to differences in the climatic conditions at each locality and within each season, individual cultivar performance may be affected. The ten highest yielding cultivars at the four locations are shown in

Table 1. Ideally cultivar recommendations should be based on three or four seasons' data for reliable information.

Three seasons' data were used for Cedara and Greytown. However, only two seasons' data were available for Dundee. Only one season's results were available from Kokstad and therefore three seasons' data from all the cool production areas in South Africa were used to provide recommended cultivars for Kokstad and other cool areas in KwaZulu-Natal.

LS 6444R, PAN 1583R and PAN 1664R yielded well at all four sites. LS 6161R and LS 6248R performed well in the cool areas and at Cedara and Greytown. PAN 1454R and PHB 95Y40 could also be considered suitable for Kokstad, Cedara and Dundee.

Although the cultivars were only evaluated at these sites, farmers intending to plant soybeans in other areas should consider planting those cultivars with consistent performances at all the evaluated sites. Selections could then be confirmed by advisors with local knowledge or seed company representatives.

While grain yield is rightly considered an important factor, other characteristics should also be taken into account. These include: growing-season length, genetic modification, bottom pod height, standability and disease resistance.

**TABLE 1** Soybean cultivar recommendations for the four localities

Kokstad <sup>^</sup>		Cedara <sup>*</sup>		Greytown <sup>*</sup>		Dundee <sup>#</sup>	
Cultivar	(t/ha)	Cultivar	(t/ha)	Cultivar	(t/ha)	Cultivar	(t/ha)
LS 6164R	2.85	LS 6161R	3.96	PAN 1583R	3.05	HIGHVELD TOP	2.40
PAN 1454R	2.80	PAN 1454R	3.95	LS 6161R	2.94	A 5409RG	2.36
LS 6146R	2.75	PAN 1664R	3.95	PAN 1664R	2.93	PAN 1664R	2.33
PAN 1583R	2.75	HIGHVELD TOP	3.94	MARULA	2.80	LS 6444R	2.28
LS 6444R	2.72	PHB 95Y40	3.90	LS 6146R	2.80	PHB 95Y40	2.28
PAN 1664R	2.70	MARULA	3.75	PAN 1666R	2.76	SONOP	2.24
LS 6161R	2.60	LS 6248R	3.75	LS 6444R	2.74	DUNDEE	2.11
PHB 95Y40	2.60	LS 6444R	3.73	LS 6248R	2.74	PAN 1583R	2.10
LS 6248R	2.59	PAN 1583R	3.69	SONOP	2.69	LS 6150R	2.08
SONOP	2.59	KNAP	3.69	HERON	2.65	PAN 1454R	2.07

<sup>^</sup> Based on results from the 2011/12, 2012/13 and 2013/14 seasons for the cool production areas in South Africa.

<sup>\*</sup> Seasons 2011/12 to 2013/14

<sup>#</sup> Seasons 2011/12 and 2012/13

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