



## MAIZE CULTIVAR RECOMMENDATIONS

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The Agronomy Section within the Directorate: Research & Technology Development of the KwaZulu-Natal Department of Agriculture and Environmental Affairs, the Agricultural Research Council – Grain Crops Institute and seed companies, conduct maize cultivar evaluation trials at various sites in KwaZulu-Natal. These trials form part of a national cultivar trial conducted in the major grain producing areas of South Africa. Fifty cultivars were evaluated.

The trials were planted in 0.75 m wide rows at a seeding rate of 44 444 seeds/hectare. The crops were grown under dry-land conditions and were fertilized for a 10 ton/hectare grain yield, based on analyses of soil samples taken from each site. The Cedara Analytical Laboratory recommendations were followed. Weeds, insects and diseases were controlled throughout the growing-season. Successful maize production is based on:

- Fertilizing the crop according to soil analysis recommendations.

- Thorough land preparation.
- Optimum planting period.
- Cultivar selection.
- Control of weeds, insects and diseases.

Table 1 indicates the mean yields recorded from the ten highest yielding cultivars at each locality.

Although the cultivars were only evaluated at these four sites, farmers intending to plant maize in other areas should consider selecting 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 when selecting a cultivar. These include: grain colour, growing-season length, genetic modification, standability and disease resistance.

**TABLE 1** Maize cultivar yields recorded at the different localities

Kokstad*		Loskop#		Midlands^		Greytown+	
Cultivar	t/ha	Cultivar	t/ha	Cultivar	t/ha	Cultivar	t/ha
PAN 6Q-308B	9.32	PAN 6P-110	9.96	PAN 6Q-445B	10.73	PAN 6Q-445B	9.83
PHB 32W72B	9.18	PAN 6Q-445B	9.75	PAN 6Q-508R	10.46	LS 8518	9.36
PAN 6Q-708BR	8.83	PAN 6Q-245	9.71	PAN 6Q-308B	9.88	PAN 6Q-308B	9.21
PHB 31M09	8.79	LS 8529	9.45	PAN 6P-110	9.85	PAN 6Q-708BR	9.10
PAN 6Q-445B	8.43	PAN 6Q-708BR	9.44	PAN 6Q-708BR	9.72	PHB 30D09BR	8.89
DKC 78-35R	8.36	PAN 6Q-508R	9.13	DKC 78-15B	9.13	PHB 32W72B	8.89
PAN 6P-110	8.19	PAN 6Q-308B	9.02	CRN 3505	9.05	PHB 31M09	8.69
PHB 30D09BR	8.15	LS 8518	9.01	LS 8518	8.99	PAN 6P-110	8.64
LS 8518	7.84	DKC 77-85B	8.96	PHB 32W72B	8.73	DKC 78-15B	8.50
PAN 6Q-508R	7.74	DKC 78-35R	8.68	PHB 30D09BR	8.64	DKC 73-76R	8.39

\* Seasons 2009/10, 2011/12 and 2012/13 – representing “cool” production areas

# Seasons 2010/11, 2011/12 and 2012/13 – representing “warm” production areas

^ Seasons 2009/10 & 2010/11 (Cedara) & 2011/12 (Moorriver) - representing “moderate” production areas

+ Seasons 2009/10 (2 sites), 2010/11 (2 sites) and 2011/12 - representing “moderate” production areas

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