HYBRID GRAIN SORGHUM
CAP 1005

RED SORGHUM, LOW TANNIN

CAP 1005 is a hybrid grain sorghum with very good uniformity and threshability.

On average CAP 1005 takes approximately 80-85 days to reach 50% flower, and can be harvested after 140-145 approximately . This variety can reach heights of up to 155cm at maturity.

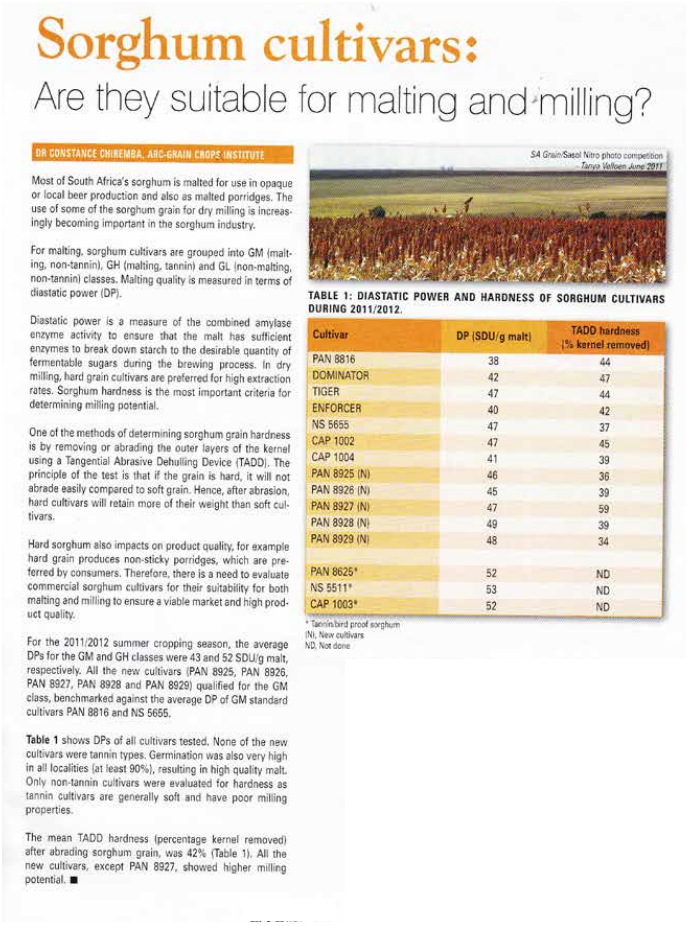
Notably CAP 1005 has good stand-ability, head-smut tolerance and leaf disease and stem rots tolerance.

CAP 1005 makes for an all-round great sorghum for both silage and grain.

Kind	Hybrid
+/- Days to 50% flower	80-85
+/- Days to harvest	140-145
Plant Height	155cm
Uniformity	2*
Stand-ability	3*
Threshability	2*
Head-smut Tolerance	3*
Leaf disease and stem rots	3*
Ear Type	Half Open
Grading	GM
Seed Colour	Red

*1 = Excellent
9=Poor

- Very high stand-ability
- Great threshability
- Red seed colour
- GM grading



Sorghum cultivars:

Are they suitable for malting and milling?

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Most of South Africa's sorghum is malted for use in opaque or local beer production and also as malted porridges. The use of some of the sorghum grain for dry milling is increasingly becoming important in the sorghum industry.

For malting, sorghum cultivars are grouped into GM (malting, non-tannin), GH (malting, tannin) and GL (non-malting, non-tannin) classes. Malting quality is measured in terms of diastatic power (DP).

Diastatic power is a measure of the combined amylase enzyme activity to ensure that the malt has sufficient enzymes to break down starch to the desirable quantity of fermentable sugars during the brewing process. In dry milling, hard grain cultivars are preferred for high extraction rates. Sorghum hardness is the most important criteria for determining milling potential.

One of the methods of determining sorghum grain hardness is by removing or abrading the outer layers of the kernel using a Tangential Abrasive Dehulling Device (TADD). The principle of the test is that if the grain is hard, it will not abrade easily compared to soft grain. Hence, after abrasion, hard cultivars will retain more of their weight than soft cultivars.

Hard sorghum also impacts on product quality, for example hard grain produces non-sticky porridges, which are preferred by consumers. Therefore, there is a need to evaluate commercial sorghum cultivars for their suitability for both malting and milling to ensure a viable market and high product quality.

For the 2011/2012 summer cropping season, the average DPs for the GM and GH classes were 43 and 52 SDU/g malt, respectively. All the new cultivars (PAN 8925, PAN 8926, PAN 8927, PAN 8928 and PAN 8929) qualified for the GM class, benchmarked against the average DP of GM standard cultivars PAN 8816 and NS 5655.

Table 1 shows DPs of all cultivars tested. None of the new cultivars were tannin types. Germination was also very high in all localities (at least 90%), resulting in high quality malt. Only non-tannin cultivars were evaluated for hardness as tannin cultivars are generally soft and have poor milling properties.

The mean TADD hardness (percentage kernel removed) after abrading sorghum grain, was 42% (Table 1). All the new cultivars, except PAN 8927, showed higher milling potential. ■

SA Grain/Sasol Nitro photo competition
Tanya Velloen June 2011

TABLE 1: DIASTATIC POWER AND HARDNESS OF SORGHUM CULTIVARS DURING 2011/2012.

Cultivar	DP (SDU/g malt)	TADD hardness (% kernel removed)
PAN 8816	38	44
DOMINATOR	42	47
TIGER	47	44
ENFORCER	40	42
NS 5655	47	37
CAP 1002	47	45
CAP 1004	41	39
PAN 8925 (N)	46	36
PAN 8926 (N)	45	39
PAN 8927 (N)	47	59
PAN 8928 (N)	49	39
PAN 8929 (N)	48	34
PAN 8625*	52	ND
NS 5511*	53	ND
CAP 1003*	52	ND

* Tannin/bird proof sorghum
(N). New cultivars
ND. Not done

CAPSTONE Seeds

Our farmers are serious about farming.
We're serious about seed.