

Genetic Modification (GM)

The majority of soybeans produced/grown in South Africa is genetically modified, an estimated 95% of the area planted to soybeans in South Africa was GM. These soybeans have tolerance to herbicides (chemical products used to destroy weeds, but not the crop plants). Worldwide, GM soybeans occupy 80% of the area planted to soybeans.

The SAGL screened 15 of the crop samples to test for the presence of CP4 EPSPS (Roundup Ready®).

The crop quality samples received by the SAGL are composite samples per class and grade, made up of individual deliveries to grain silos.

SAGL used the EnviroLogix QuickComb kit for bulk soybeans to quantitatively determine the presence of genetically modified soybeans.

All of the samples tested positive for the presence of CP4 EPSPS.

GMO Protein/Trait	Event	Trade name/Brand
CP4 EPSPS	GTS40-3-2 MON89789	Roundup Ready®

The detection range for the CP4 EPSPS trait is 0.125% to 3%. The limit of quantification (LOQ) is therefore 0.125% and values higher than 3% is reported as >3.0%.

The Coefficient of Variation for this analysis is 20%.

Table 5: GM results for the 2015/2016 season		
Region	Class and grade	CP4 EPSPS, %
10	SB1	>3.0
12	SB1	>3.0
20	SB1	>3.2
21	COSB	>3.0
25	SB1	>3.0
27	SB1	>3.0
28	SB1	>3.0
29	SB1	>3.0
30	SB1	>3.0
31	SB1	>3.0
32	SB1	>3.0
33	SB1	>3.0
34	SB1	>3.0
35	SB1	>3.0
36	SB1	>3.0
Average of samples		>3.0
Number of samples		15