

Landbounavorsingsraad
Graangewasse
Potchefstroom

Agricultural Research Council
Grain Crops
Potchefstroom

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**VERSLAG VAN DIE NASIONALE
SOJABOON KULTIVARPROEWE/
2018/19
REPORT OF THE NATIONAL
SOYBEAN CULTIVAR TRIALS**

Verantwoordelike beampte:
Responsible officer:
AS de Beer

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INHOUD/INDEX

ONDERWERP SUBJECT	BLADSY PAGE
1 INLEIDING.....	1
INTRODUCTION	1
1.1 DOEL.....	1
AIM	1
2 MATERIAAL EN METODE	1
MATERIALS AND METHODS	1
2.1 ALGEMEEN	1
GENERAL	1
2.2 WAARNEMINGS.....	2
OBSERVATIONS	2
2.2.1 Blomdatum	2
Date of flowering.....	2
2.2.2 Fisiologies ryp	2
Physiological maturity.....	2
2.2.3 Oesrypdatum.....	2
Date of harvest maturity.....	2
2.2.4 Planthoogte	2
Plant height	2
2.2.5 Peulhoogte	2
Pod height	2
2.2.6 Omval.....	2
Lodging.....	2
2.2.7 Groenstam.....	3
Green Stem.....	3
2.2.8 Oopspring.....	3
Shattering	3
2.2.9 Aantal plante (3 weke na opkoms)	3
Number of plants (3 weeks after emergence).....	3
2.2.10 Massa per 100 sade	3
100 Seed mass	3
2.2.11 Ongewenste sade	3
Undesirable seed	3
2.2.12 Proteïen-en oliepersentasie	3
Protein and oil percentage	3
2.2.13 Saadopbrengs	3
Seed yield	3
2.3 DIE EVALUERING VAN PROEWE.....	3
THE EVALUATION OF TRIALS	3
3 BESPREKING VAN RESULTATE	4

DISCUSSION OF RESULTS	4
3.1 ALGEMEEN	4
GENERAL	4
3.2 BESPREKING VAN TABELLE	5
DISCUSSION OF TABLES	5
3.2.1 Dae tot blom, fisiologiesryp en lengte van die groeiperiode	5
Days to flowering, physiological maturity and length of growing season	5
3.2.2 Planthoogte	5
Plant height	5
3.2.3 Peulhoogte	6
Pod height	6
3.2.4 Omval.....	6
Lodging.....	6
3.2.5 Groenstam.....	6
Green stem	6
3.2.6 Oopspring.....	7
Shattering	7
3.2.7 Planttelling	7
Number of plants	7
3.2.8 Persentasie ongewenste sade	7
Percentage undesirable seed	7
3.2.9 Saadgrootte	7
Seed size	7
3.2.10 Oliepersentasie	7
Oil percentage	7
3.2.11 Ru-proteïenpersentasie	8
Crude Protein Percentage	7
3.2.12 Protolie	8
Profat	8
3.2.13 Opbrengs	8
Yield	8
4 INTERPRETASIE VAN OPBRENGSRESULTATE	8
INTERPRETATION OF YIELD RESULTS	8
4.1 INLEIDING.....	8
INTRODUCTION	8
4.2 OPBRENGSWAARSKYNLIKHEID EN OPBRENGS	9-10
YIELD PROBABILITY AND YIELD	9

TABEL
TABLE

BLADSY
PAGE

Lys van medewerkers	11
List of co-operators	11
 NASIONALE SOJABOONKULTIVARPROEWE NATIONAL SOYBEAN CULTIVAR TRIALS	
1 Sojaboonsaad eienskappe en saadverskaffers	12
Soybean seed characteristics and agents.....	12
2 Grond en verbouingsinligting.....	13
Soil and general information	13
3 Reënvalgegewens.....	14
Rainfall detail	14
4 Dae tot blom	15
Days to flowering.....	15
5 Dae tot fisiologiesrypstadium.....	16
Days to physiological maturity	16
6 Lengte van groeiperiode	17
Length of growing season	17
7 Planthoogte (cm)	18
Plant height (cm).....	18
8 Peulhoogte (cm).....	19
Pod height (cm).....	19
9 Omval (1-5)	20
Lodging (1-5)	20
10 Groenstam (1-5)	21
Green stem (1-5)	21
11 Oopspring (1-5)	22
Shattering (1-5)	22
12 Planttelling (3 weke na plant).....	23
Number of plants (3 weeks after emergence).....	23

13	Percentasie ongewenste sade	24
	Percentage undesirable seed	24
14	Massa/100 sade (g)	25
	Mass/100 seeds (g)	25
15	Oliepersentasie	26
	Oil percentage	26
16	Ru-proteïenpersentasie	27
	Crude Protein Percentage	27
17	Protolie	28
	Profat	28
18	Opbrengste per lokaliteit	29
	Actual yield for various localities	29
19	Opbrengswaarskynlikheid vir koeler produksiegebiede (3 jaar)	30
	Yield probability for cooler production areas (3 year).....	30
20	Opbrengste vir koeler produksiegebiede (2 jaar)	31
	Actual yield for cooler production areas (2 year)	31
21	Opbrengswaarskynlikheid vir matige produksiegebiede (3 jaar)	32
	Yield probability for moderate production areas (3 year)	32
22	Opbrengste vir matige produksiegebiede (2 jaar)	33
	Actual yield for moderate production areas (2 year)	33
23	Opbrengswaarskynlikheid vir warmer produksiegebiede (3 jaar)	34
	Yield probability for warmer production areas (3 year).....	34
24	Opbrengste vir warmer produksiegebiede (2 jaar)	35
	Actual yield for warmer production areas (2 year)	35
25	Saamgevatte inligting vir koeler produksiegebiede	36
	Summerised information for cooler production areas	36
26	Saamgevatte inligting vir matige produksiegebiede	37
	Summerised information for moderate production areas	37
27	Saamgevatte inligting vir warmer produksiegebiede	38
	Summerised information for warmer production areas	38

1 INTRODUCTION

The National Soybean Cultivar Trials (project M101/62 (P05000002) were planted for the 41th successive year this past growing season. A total of 22 trials (of the planned 25 trials) were planted at 22 localities, illustrated in the locality list.

1.1 AIM

The aim of the project was primarily the following:

- (I) To compare cultivars for agronomic and economic performance;
- (ii) to test the adaptability of cultivars and new releases for specific areas and cultivation practices.

2 MATERIALS AND METHODS

2.1 GENERAL

The trials were planted as randomized block designs as well as a Latinized row-column design using three replications with 32 cultivars for the moderate as well as warm areas and 28 cultivars for the cool areas. Cultivar characteristics are shown in Table 1.

Each trial plot consisted of four, 5 m rows. Four metres were harvested from each of the middle two rows, in order to avoid border effects. Soil form, fertilization and weed control are indicated together with row spacing in Table 2. All seeds were inoculated with Bradyrhizobium japonicum bacteria at planting.

The localities where trials were planted represent a wide range of climatic conditions. Trials were carried out on the ARC and Departmental Research Stations as well as on privately owned farms. Observations were recorded by responsible officers and collaborators as indicated in the list of collaborators. Planting time and cultivation practice were executed to correspond with that of commercial plantings in the specific

areas. Rainfall and irrigation are indicated in Table 3. Note that rainfall is only recorded from October to April and not for the specific growing season of a trial.

2.2 OBSERVATIONS

A brief definition of some of the observations in the trials is as follow:

- 2.2.1 Date of flowering: The time at which one fully open flower per plant was observed across 50% of the plots.
- 2.2.2 Physiological maturity: The number of days when 50% of the pods appear yellow or brown.
- 2.2.3 Date of harvest maturity: When 95% of the pods for a given plot had turned brown. This is an indication of length of growing season, (number of days from date of planting to date of maturity).
- 2.2.4 Plant height: The average height in centimetre (cm) of plants from the soil surface to the growth point at maturity.
- 2.2.5 Pod height: The average height in centimetre (cm) of the lowest pods on the plant from soil surface at maturity.
- 2.2.6 Lodging: Lodging at time of harvest was rated on the following scale:
 - 1 = No lodging
 - 2 = Few lodging, will not hamper mechanical harvesting
 - 3 = Few lodging, lodging less than what will hamper mechanical harvesting
 - 4 = Few lodging, will hamper mechanical harvesting, with yield loss
 - 5 = Fair number of plants lodged, will hamper mechanical harvesting, with yield loss
 - 6 = Many plants lodged, will hamper mechanical harvesting, with yield loss

- 7 = A large number of plants lodged, will hamper mechanical harvesting, with yield loss
- 8 = Nearly all plants lodged, will hamper mechanical harvesting, yield loss
- 9 = All plants lodged, will hamper mechanical harvesting, yield loss

- 2.2.7 Green stem: The percentage green stems at harvest rated on a 1 (normally mature) to 5 (more than 80% green stems) scale.
- 2.2.8 Shattering: Measured at time of harvest. Shattering is reported on a scale of 1 (no shattering) to 5 (more than 91-100% pods shattered).
- 2.2.9 Plant count three (3) weeks after emergence: The number of plants counted on 5 m of the two inner rows. This data will be used to calculate the germination percentage and will be compared with the germination percentage of different soil types.
- 2.2.10 100 seeds mass: Determined on an air dry basis from a randomly selected sample retained on a 4,75 mm standard grading screen.
- 2.2.11 Undesirable seed: The mass of undesirable seed was determined in a random 100 g sample with seed size greater than 4,75 mm (excluding mechanical damaged seeds).
- 2.2.12 Protein and oil percentage: The analysis was done by the SAGL (Southern African Grain Laboratory NPC) by using the “Soxhlet” apparatus (oil percentage) and the “Dumas” method (protein percentage).
- 2.2.13 Grain yield: Four metres of the two centre rows were harvested by hand at soil level and threshed. The grain moisture was determined and yield calculated on a basis of 12,5% moisture content.

2.3 THE EVALUATION OF TRIALS

The yield data of the individual trials were subjected to analysis of variance (ANOVA) with a randomized complete block design (RCBD) as well as a Latinized row-column design.

The localities with coefficient of variance higher than 25% were rejected from the analysis.

The trial means (x-axis) versus the cultivar means (y-axis) is plotted. A regression line is then fitted with the trial means as x variable and cultivar means as predictor variable. Out of the regression estimates the yield probability percentage above the mean for each cultivar at different yield potentials is then calculated and presented in a table as a guideline for the use of different cultivars under different circumstances.

A yield probability of more than 50% indicated above average yield and a yield probability of less than 50% indicated a below average yield.

3 DISCUSSION OF RESULTS

3.1 GENERAL

The rainfall and irrigation data are shown in Table 3.

Eight (8) of the 22 trials planted could not be included (36.4%) in the report compared to the three (3) out of 21 trials (14%) in the 2017/18 season.

The following trials could not be included in the report for the following reasons:

- 1 Clocolan – High CV%. Poor emergence due to severe drought just after planting.
- 2 Delmas – Data not reliable.
- 3 Dundee – Data not reliable.
- 4 Middelburg – Poor emergence due to severe drought just after planting.
Trial terminated.
- 5 Leeudoringstad - Poor emergence due to severe drought just after

- planting. Trial terminated.
- 6 Potchefstroom Seed Co – High CV%. Poor emergence and low yield due to severe drought.
- 7 Schweizer Reneke - Poor emergence and low yield due to severe drought. Trial terminated.
- 8 Skuinsdrift – Insufficient data.

As in the previous seasons the evaluation of the trials was based on a number of parameters. No conclusion can be made on a single parameter.

3.2 DISCUSSION OF TABLES

3.2.1 Days to flowering (Table 4), physiologically mature (Table 5) and length of the growing season (Table 6)

The number of days from planting to flowering (Table 4) is an effective measure for the grouping of cultivars because the relative order of rank for this characteristic is repeated to a great extent over localities and years. As expected the average days to flowering was the shortest in the warm areas (48 days Groblersdal) and the longest in the cooler areas (85 days at Clarens).

The number of days to physiological maturity is shown in Table 5. The longest average days to maturity was experienced at Bethlehem (165 days).

The number of days to harvest maturity (Table 6) was used to determine the length of the growing season of a cultivar. The number of days to harvest maturity is however, more dependent on climatic changes and planting date for soybeans and, the number of days to flowering is therefore a more reliable maturity grouping criterion.

3.2.2 Plant height (Table 7)

The indeterminate cultivar DM 6.8i RR (MG 6.8) had a mean plant height of 130 cm (highest) in the warm area compared to 52 cm (lowest) of the indeterminate cultivar P48T48 R (MG 4.8) in the moderate region.

The average plant height between localities varied from a mean of 53 cm at Kroonstad to 105 cm at Bapsfontein.

3.2.3 Pod height (Table 8)

The variation in pod and plant height between cultivars is linked with the length of the growing season of a cultivar. The cultivars LS 6860 R (MG 6.0; indeterminate), P64T39 R (MG 6.4; indeterminate) and LS 6164 R (MG 6.0; determinate), had a mean pod height of 32 cm in the warm area, but also had an above average pod height in the cool and moderate areas.

Other cultivars with above average pod heights for all the climate areas are SSS 5052 (tuc) (MG 5.5; indeterminate), NS 5909 R (MG 5.9; indeterminate), LS 6860 R (MG 6.0; indeterminate), LS 6164 R (MG 6.0; determinate), LS 6161 R (MG 6.1; indeterminate), NS 6448 R (MG 6.4, semi-determinate), PAN 1653 R (MG 6.7; determinate) and LS 6868 R (MG 6.8; indeterminate).

NS 5009 R (MG 5.0; indeterminate), NS 5258 R (MG 5.2; indeterminate) and Y 540 (MG 5.4; indeterminate) had the lowest reading of 5 cm. Considerable harvest losses can occur due to low pod height; thus pod height is an important factor influencing cultivar choice. Differences in pod height between localities can mainly be attributed to differences in row width and climate. A pod height of at least 7.5 cm (combine harvesting height) is preferable.

3.2.4 Lodging (Table 9)

The highest overall lodging occurred in the trial at Bapsfontein. The highest lodging figures was reported for LS 6164 R and LDC 5.9 at Bergville in the moderate area.

3.2.5 Green stem (Table 10)

A high percentage of green stem, was recorded at Potchefstroom, Kroonstad and Bapsfontein while the cultivar DM 5351 RSF showed a high tendency for green stem, across all three climatic regions. P48T48 R showed above average figures for the

cool and moderate areas and SSS 6560 (tuc) for the warm area. Plants also retained their leaves that could hamper the harvesting process.

3.2.6 Shattering with harvesting (Table 11)

The highest shattering occurred at Clarens in the cool-, Stoffberg in the moderate-, as well as at Groblersdal in the warm area.

3.2.7 Number of plants three (3) weeks after emergence (Table 12)

Enough certified seed was provided to establish 400 000 plants ha^{-1} for the irrigation and high rainfall areas and 350 000 for dryland. Extremely poor emergence were recorded for cultivars Y 540 and Y 605.

3.2.8 Percentage undesirable seed (Table 13)

The lowest mean of 0.24% undesirable seeds was recorded for the moderate region. The range varied from 0.65% at Groblersdal 0.03% at Greytown.

3.2.9 Mass (g) 100^{-1} seeds (Table 14)

The variation in seed mass among localities ranged between 13.15 g 100^{-1} seeds at Clarens to 19.09 g 100^{-1} seeds at Greytown. The highest seed mass was recorded for P48T48 R in the cool and moderate regions, while SSS 5449 (tuc), had the smallest seed in all the climate regions.

3.2.10 Oil percentage (Table 15)

The cultivar DM 5901 RSF had, the highest average oil percentage for all the regions (20.61% cool, 22.29% moderate, 22.48% warm). The average oil percentage are 21.28% for the warm, 20.47% for the moderate and 19.29% for the cool area.

3.2.11 Crude Protein percentage (Table 16)

The cultivar DM 5302 RSF, as the previous season had the highest values for all the climate regions (42.34% cool, 43.67% moderate, 43.44% warm). The overall average are 40.72% for the warm, 41.15% for the moderate and 39.65% for the cool area.

3.2.12 Profat (Table 17)

The inclusion of this table in the report was requested by Dr Erhard Bredenham as the total value of oil and protein is a much better indicator for the selection of a cultivar than the single oil or protein factor. The cultivar DM 5302 RSF, as the previous season, had the highest average profat value for all the regions.

3.2.10 Yield (Table 18)

Due to the sensitivity of soybean cultivars to environmental conditions, it is preferable to divide the soybean production areas into cool, moderate and warm regions. A better yield can be established by choosing a cultivar suitably adapted for a specific region. It is also necessary to use data from more than one year to select between cultivars. Due to the significant cultivar and locality interaction, conclusions on cultivar performance should not be made from average yield data alone. The mean yield over localities has therefore been omitted.

4 INTERPRETATION OF YIELD RESULTS

4.1 INTRODUCTION

A stated aim of the national soybean cultivar trials is the evaluation of cultivars for their adaptability to a potential production area, and for their yield performance. Adaptability is especially important because of the fact that soybean cultivars are known to be restricted in terms of recommended production area. This fact is also demonstrated by the results discussed in this report.

Because of genotypic restriction in adaptability the statistical analysis of data over all trial entries and localities tend to demonstrate strong interaction components which confound interpretation. Interaction makes genotype rankings at one site inapplicable to another site. The larger the interaction the more information is lost if interaction is not analysed effectively. This will be a lesser problem for homogeneous areas than for non-homogeneous areas. However, a purpose of the national trials is to identify homogeneous areas or homogeneous growing conditions based on cultivar performance. Localities were therefore grouped together based on past research experience and with the assistance of photo thermal charts provided by the Institute for Soil, Climate and Water. Localities were grouped in cool, moderate and warm production areas.

4.2 YIELD PROBABILITY AND YIELD (Tables 19, 20, 21, 22, 23 & 24)

A minimum number of successful trials per climatic area are needed to calculate saved yield probability values. Yield probability tables are set up for cool-, moderate and warm regions, if enough data is available.

Yield probability of a cultivar is the chance to get an above average yield at a particular yield potential. For instance, if the yield probability of a cultivar, at a particular yield potential equals 60%, the chance to get a yield above the mean of all cultivars is 60% with a 40% chance of obtaining a yield below the mean. Thus a 60% probability indicated a 10% chance of an above average yield, while a 40% probability indicated a 10% chance of getting a below average yield.

P64T39 R and DM 5302 RSF showed an above average yield probability (Table 19) for all the yield potentials in the cool area. For the moderate area PAN 1521 R as for the warm area, showed above average figures over the whole production potential range (Table 21 and 23). P61T38 R and P64T39 R also performed above average for the warm areas (Table 23).

Lokaliteite, medewerkers en adresse van kultivarproewe soos beplan vir, 2018/19
Localities, co-operators and addresses of the cultivar trials, 2018/19

Nr No	Lokaliteit Locality	Adres van proeflokaliteit Address of trial locality	Tel. no. Tel. nr.	Verantwoordelike beampte Responsible officer
1	Bapsfontein	-	013 665 2251/082 969 1981	A Mathebula
2	Bergville	J Jackson Shamrock H4 Bergville 33550	082 388 0311	R Wessels
3	Bethlehem	Kleingraan Instituut Bethlehem 9700	082 375 8999	L Bronkhorst
4	Bossies	-	082 375 8999/083 660 2521	L Bronkhorst & G de Beer
5	Brits K2	K2 Navorsingstasie Brits 0250	071 601 5092	D Leewner
6	Cedara	Cedara P/Bag X9059 Pietermaritzburg 3200	033-355 9495/079 898 5522	J Arathoon
7	Clarens	DTerblanche Tailfert Clarens 9707	082 388 0311	R Wessels
8	Clocoian	G Hugo van Niekerk Kroon Clocoian 9735	082 375 8999	L Bronkhorst
9	Delmas-Pannar	Pannar Saad Navorsingstasie Posbus 439 Delmas 2210	013-665 8524/082 969 1981	A Mathebula
10	Dundee	Dundee Navorsingstasie Posbus 626 Dundee 3000	034 212 479/076 953 3587	M Buthelezi
11	Greytown	Pannar Proefplaas Posbus 19 Greytown 3250	033-413 9639	A Jarvie
12	Grobiersdal (Agricor)	R Louw De Wagensrift B5 Suite 38 postnet Groblersdal 0470	083 625 4906/081 016 7848	F Hamman & C Schoeman
13	Hertzogville	-	082 375 8999/083 660 2521	L Bronkhorst & G de Beer
14	Hoopstad	-	082 375 8999/083 660 2521	L Bronkhorst & G de Beer
15	Hopetown/Skuinsdrif	-	084 475 0924/071 746 6618	D Scheepers & PJ Fourie
16	Kinross	Vosstoffel Boerdery Posbus 80 Kinross 2270	082 375 8999	L Bronkhorst
17	Kokstad	Research Station P/Bag X501 Kokstad 4700	039 727 2105/072 777 8785	MP Skhakane
18	Kroonstad	Hoërskool Kroonstad Kroonstad 9500	082 375 8999	L Bronkhorst
19	Leeudoringstad	-	082 375 8999/083 660 2521	L Bronkhorst & G de Beer
20	Marble Hall	-	071 601 5092	D Leewner
21	Middelburg	G Anderson Postnet Suite 15 P/Bag 1866 Middelburg 1050	082 375 8999	L Bronkhorst
22	Potchefstroom Seed Co	-	082 314 0959	Khuliso
23	Potchefstroom ARC	114 Chris Hani Street Potchefstroom 2531	082 375 8999	L Bronkhorst
24	Schweizer Reneke	-	082 375 8999/083 660 2521	L Bronkhorst & G de Beer
25	Stoffberg	P Prinsloo Blinkwater Posbus 6 Stoffberg 1056	083 625 4906/081 016 7848	F Hamman & C Schoeman

Tabel 1 Sojaboonaad eienskappe en inligting oor verskaffers, 2018/19
Table 1 Soybean seed characteristics and information about agents, 2018/19

Kultivar Cultivar	Volvassenheids- groepings- Maturity Group	Groeiyse *1	Hilum kleur Hilum colour *2	Bloemkleur Flower colour *3	Haarkleur Pubescence *4	Op varieteits lys On variety list	Verskaffer Agent	Telers regte Breeding rights
P48T48 R	4.8	-	B	W	T	JAYES	Pioneer	JAYES
LS 6248 R	4.8	BL	W	W	W	JAYES	Link Seed	JAYES
DM 5953 RSF	4.8	IB	P	G	G	JAYES	GDM Seeds	JAYES
SSS 5449 (tuc)	4.9	B	P	T	T	JAYES	Sensako	JAYES
NS 5009 R	5.0	B	W	B	B	JAYES	K2	NEE/NO
NS 5258 R	5.2	BL	W	G	G	JAYES	K2	NEE/NO
PAN 1532 R	5.3	LB	P	G	G	JAYES	Pannar	JAYES
LDC 5.3	5.3	B	W	G	G	JAYES	Louise Dreyfus	NEE/NO
DM 5351 RSF	5.3	IB	W	B	B	JAYES	GDM Seeds	JAYES
Y 540	5.4	B	W	-	G	JAYES	Southern Hemisphere Seeds	NEE/NO
SSS 5052 (tuc)	5.5	B	W	JAYES	JAYES	JAYES	Sensako	JAYES
NA 5509	5.5	BL	P	JAYES	JAYES	JAYES	K2	NEE/NO
LS 6851 R	5.5	D	P	JAYES	JAYES	JAYES	Link Seed	JAYES
PAN 1521 R	5.7	IB	P	JAYES	JAYES	JAYES	Pannar	JAYES
DM 5302 RSF	5.7	LB	P	JAYES	JAYES	JAYES	GDM Seeds	JAYES
NS 5909 R	5.9	IB	P	JAYES	JAYES	JAYES	K2	NEE/NO
LDC 5.9	5.9	LB	W	B	G	JAYES	Louise Dreyfus	NEE/NO
DM 5901 RSF	5.9	LB	W	G	G	JAYES	GDM Seeds	JAYES
LS 6860 R	6.0	B	P	JAYES	JAYES	JAYES	Link Seed	JAYES
LS 6164 R	6.0	D	W	JAYES	JAYES	JAYES	Link Seed	JAYES
P6TT38 R	6.1	D	W	JAYES	JAYES	JAYES	Pannar	JAYES
Y 605	6.1	-	P	-	G	JAYES	Southern Hemisphere Seeds	NEE/NO
LS 6161 R	6.1	IB	P	JAYES	JAYES	JAYES	Link Seed	JAYES
SSS 6560 (tuc)	6.2	B	W	JAYES	JAYES	JAYES	Sensako	NEE/NO
Y 627	6.2	B	W	JAYES	JAYES	JAYES	Southern Hemisphere Seeds	NEE/NO
DM 6663 RSF	6.3	SD	LB	P	G	JAYES	GDM Seeds	JAYES
NS 6448 R	6.4	LB	W	JAYES	JAYES	JAYES	K2	NEE/NO
P64T39 R	6.4	KL	P	JAYES	JAYES	JAYES	Pannar	JAYES
Y 657	6.5	B	P	-	G	JAYES	Southern Hemisphere Seeds	NEE/NO
PAN 1644 R	6.7	IB	P	JAYES	JAYES	JAYES	Pannar	NEE/NO
PAN 1653 R	6.7	D	W	JAYES	JAYES	JAYES	Link Seed	JAYES
LS 6868 R	6.8	B	P	JAYES	JAYES	JAYES	GDM Seeds	JAYES
DM 681 RR	6.8	IB	G	JAYES	JAYES	JAYES	Pioneer	JAYES
DM 6968 RSF	6.9	-	W	JAYES	JAYES	JAYES	Pioneer	JAYES
P71T74 R	7.1	KL	G	JAYES	JAYES	JAYES		

*1 D - Bepaal/determinate; I - Onbepaal/determinate; SD - Semi-Bepaal/semi determinate

*2 BL - Swart/black; IB - Onvolloid swart/imperfect black; B - Bruin/brown; LB - Ligbruin/buff; G - Grys/grey; KL - Kleurloos/buff

*3 P - Pers/purple; W - Wit/white

*4 B - Bruin/brown; G - Grys/grey; W - Wit/white; T - Taankleurig/Tawny

Tabel 2 Algemene inligting aangaande grond en verbouwingpraktiese by die onderskeie proeflokaliteite van die kultivarproewe, 2018/19
Table 2 General information on soil and cultivation practices at the different trial localities, 2018/19

Lokalteit Locality	Plantdatum Date of planting	Grondvorm Soil type	Grond ontleding Soil analysis			Bemesting Fertilization			Spasiëring Spacing (cm)	Onkruid beheer Weed control	Koördinate van lokaliteit Co-ordinate of localities
			pH (H ₂ O)	P	K	N	P	K			
Bapsfontein/B/I	08/11/2018	-	-	-	-	-	-	-	90	-	26.0876 S 28.5818 O
Bergville/B/I	05/11/2018	-	4.91	151	188	-	-	-	90	-	28°42'824 S 029°17'965 O
Bethlehem/D	24/10/2018	Avalon	6.49	56	303	3.36	2.52	0	75	Strongarm, Alachlor, skoffel	28°54'25.2" S 027°35'56.9" O
Bossies/D	Not planted to dry	-	4.80	27	233	-	-	-	75	-	-
Brits K2/B/I	07/12/2018	Katspruit	-	-	-	-	-	-	75	Geen. Slegs geskoffel	25°35'33.5" S 27°43'00.4" O
Cedara/D	22/11/2018	Hutton	4.38	8	192	0	4.725	0	45	Dual S Gold, Batateleur Gold and Round-up powermax	29°32'10" S 30°16'00" O
Clarens/D	30/11/2018	-	4.86	48	174	-	-	-	90	-	28°22'44.7" S 28°23'49.9" O
Chocolate/D	27/11/2018	-	5.06	32	80	6.44	2.52	10	75	Strongarm en Alachlor	28.90864" S 027.60007" O
Delmas/D	14/11/2018	Sandy loam (Davidson)	-	-	-	-	-	-	90	Flumeisulam, Metolachlor 960, Roundup	-26.1468 S -28.7131 O
Dundee/D	12/12/2018	Hutton	-	-	-	-	-	-	45	-	28°8'37" S 30°18'24" O
Greytown/D	03/12/2018	Hutton	-	-	-	-	-	-	75	Metagan Gold, Roundup	
Grobblersdal/B/I	14/11/2018	Hutton	6.41	21	333	-	-	-	76	Round-up powermax	25.371089 S 29.377447 O
Hertzogville/D	Not planted to dry	-	6.57	22	153	-	-	-	75	-	-28.1998250 S 25.4263320 O
Hoopstad/D	Not planted to dry	-	7.26	30	108	-	-	-	75	-	-27.8756250 S 25.128520 O
Kinross/D	22/11/2018	-	6.34	44	100	3.08	2.31	0	75	Strongarm, Alachlor, Round-up, skoffel	26°22'26.2" S 29°08'47.7" O
Kookstad/D	05/12/2018	-	-	-	-	-	-	-	45	Dual Gold	30°31'53.6" S 29°24'47.7" O
Kroonstad/D	19/12/2018	-	6.85	27	243	5.32	8.19	0	75	Strongarm, Alachlor, Round-up, skoffel	27°36'28.4" S 027°13'47.1" O
Leeudoringstad/D	04/01/2019	-	6.34	24	145	-	-	-	75	-	27°17'06.4" S 026°26'36.8" O
Marble Hall/B/I	06/12/2018	Avalon	-	-	-	-	-	-	75	Strongarm, Agill, Round-up	25°04'08.75" S 29°08'54.2" O
Middelburg/D	13/11/2018	-	Boer werk op globale grondmonster	-	-	-	-	-	75	Strongarm, Agill, Round-up, skoffel	28°09'41.4" S 028°18'15.5" O
Potchefstroom Seed Co/D	22/11/2018/ 06/12/2018	-	5.70	24	291	-	-	-	75	-	26°47'46.1" S 27°05'26.0" O
Potchefstroom ARC/B	29/11/2018	Hutton	6.14	61	268	0	2.31	0	75	Strongarm, Alachlor, Round-up, skoffel	26°44'00.0" S 027°04'01.2" O
Schweizer Reneke/D	03/01/2019	-	5.13	24	153	-	-	-	75	-	26°58'50.4" S 25°21'04.0" O
Skuinsdrift (Hopestown)B	18/12/2018	-	-	-	-	-	-	-	75	-	-
Stoffberg/D	12/11/2018	Hutton	4.77	15	150	-	-	-	76	Round-up powermax	25.437176 S 29.853436 O

- Inligting nie beskikbaar/information not available

Cedara – bird damage at emergence

Stoffberg hael 21 Desember 2018

Tabel 3 Reënval en besproeiing vir die verskillende lokaliteite (mm), 2018/19
Table 3 Rainfall and irrigation at the different localities (mm), 2018/19

Lokaliteit Locality	Maandelikse reënval (mm)/Monthly rainfall (mm)						Totaal Total * Besproeiing Irrigation	Totaal Total **
	Okt	Nov	Des	Jan	Feb	Mrt		
Bethlehem	24,38	30,99	52,07	84,58	81,28	141,99	181,1	596,39
Cedara	61,47	40,89	147,32	57,41	123,19	61,47	111	602,75
Delmas	61,51	78,15	120,47	196,07	131,27	55,98	121,92	765,37
Greytown	64,4	47,4	146,6	65,2	153,4	121,8	70,8	669,6
Groblersdal	5	105	122	135	189	89	38	683
Kroonstad	3,81	7,87	60,96	48,77	62,99	101,09	201,42	486,91
Potchefstroom B	22,1	17,02	42,42	70,87	49,02	34,54	145,8	381,77
Stoffberg	3	134	106	134	170	52	94	693

* Vir reënval/For rainfall

* Vir reënval en besproeiing/For rainfall and irrigation

Tabel 4 Die aantal dae vanaf plant tot 50% blomstadium van die verskillende sojaboontkultivars by die verskillende proef lokalteite, 2018/19
 Table 4 The number of days from planting to 50% flowering stage of the different soybean cultivars at the different trial localities, 2018/19

Cultivar	Kultivar	Koel/Cool		Kirkwood		Bergvliel		Cedara		Kroonstad		Potchefstroom		Stoffberg		Gem/Mean		Agricoll		Groblersdal		Warm		Gem/Mean	
		Bapsfontein	Bethlehem	Kirross	Kirkwood	Gem/Mean	Bergvliel	Cedara	Kroonstad	Gem/Mean	Potchefstroom	B/I	Gem/Mean	Stoffberg	Gem/Mean	Gem/Mean	Gem/Mean	Gem/Mean	Gem/Mean	Gem/Mean	Gem/Mean	Gem/Mean	Gem/Mean	Gem/Mean	Gem/Mean
P48T48 R	77	53	75	55	51	62	45	47	46	-	56	55	48	-	-	-	-	-	-	-	-	-	-	-	
LS 6248 R	63	53	82	69	77	69	59	61	65	-	55	55	59	-	-	-	-	-	-	-	-	-	-	-	
DM 5953 RSF	77	62	70	62	52	65	45	49	46	52	55	55	49	-	-	-	-	-	-	-	-	-	-	-	
SSS 5449 (tuc)	67	82	88	75	75	77	45	61	58	62	58	57	57	-	-	-	-	-	-	-	-	-	-	-	
NS 5009 R	77	65	75	55	53	65	45	49	46	47	57	49	40	-	-	-	-	-	-	-	-	-	-	-	
NS 5258 R	76	65	70	55	54	64	44	55	50	52	58	52	39	-	-	-	-	-	-	-	-	-	-	-	
PAN 1532 R	68	82	90	69	77	77	52	61	46	52	59	54	43	-	-	-	-	-	-	-	-	-	-	-	
LDC 5.3	64	65	88	69	95	76	52	59	46	52	59	54	44	-	-	-	-	-	-	-	-	-	-	-	
DM 5351 RSF	77	53	90	55	54	66	45	48	46	52	55	49	36	-	-	-	-	-	-	-	-	-	-	-	
Y 540	-	-	82	-	75	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SSS 5052 (tuc)	68	71	88	82	77	77	59	62	58	56	60	59	49	-	-	-	-	-	-	-	-	-	-	-	
NA 5509 R	70	92	88	75	80	81	59	68	63	56	63	62	49	-	-	-	-	-	-	-	-	-	-	-	
LS 6851 R	66	71	82	69	73	72	52	61	58	54	61	57	45	-	-	-	-	-	-	-	-	-	-	-	
PAN 1521 R	65	82	82	78	77	77	59	65	63	56	63	61	47	-	-	-	-	-	-	-	-	-	-	-	
DM 5302 RSF	62	89	85	69	76	76	45	59	46	52	63	53	45	-	-	-	-	-	-	-	-	-	-	-	
NS 5909 R	71	89	90	75	78	81	52	69	65	52	63	60	51	-	-	-	-	-	-	-	-	-	-	-	
LDC 5.9	63	82	88	70	76	76	59	62	58	56	64	60	50	-	-	-	-	-	-	-	-	-	-	-	
DM 5901 RSF	68	89	85	78	70	78	59	63	65	56	65	62	49	-	-	-	-	-	-	-	-	-	-	-	
LS 6860 R	72	82	88	75	78	79	59	70	65	57	68	64	48	-	-	-	-	-	-	-	-	-	-	-	
LS 6164 R	68	71	88	69	76	74	59	65	63	52	68	61	51	-	-	-	-	-	-	-	-	-	-	-	
P61T38 R	67	53	82	75	76	71	59	67	63	56	64	62	52	-	-	-	-	-	-	-	-	-	-	-	
Y 605	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LS 6161 R	68	82	82	78	77	77	55	62	65	54	68	61	51	-	-	-	-	-	-	-	-	-	-	-	
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Y 627	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DM 6663 RSF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NS 6448 R	70	82	90	75	79	79	63	68	68	57	67	65	52	-	-	-	-	-	-	-	-	-	-	-	
P64T39 R	74	89	90	78	80	82	66	67	65	56	67	64	52	-	-	-	-	-	-	-	-	-	-	-	
Y 657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PAN 1644 R	70	89	90	75	78	80	63	67	63	56	66	63	54	-	-	-	-	-	-	-	-	-	-	-	
PAN 1653 R	70	96	88	78	79	82	63	70	63	59	70	65	49	-	-	-	-	-	-	-	-	-	-	-	
LS 6868 R	72	96	94	82	81	85	69	63	63	56	68	63	53	-	-	-	-	-	-	-	-	-	-	-	
DM 6.8i RR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DM 6968 RSF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P71T74 R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gem/Mean	70	76	85	71	73	75	56	63	63	55	63	59	48	-	-	-	-	-	-	-	-	-	-	-	

Tabel 5 Die aantal dae vanaf plant tot fisiologiesrypstadium van die verskillende sojaboontkultivars by die verskillende proef lokaliteite, 2018/19
 Table 5 The number of days from planting to physiological maturity of the different soybean cultivars at the different trial localities, 2018/19

Kultivars	Cultivar	Bethlehem	Carnes	Kokstad	Bergriviere	Cedara	Kroonstad	Stoffberg	Pofadder	Groblersdal	Gem/Mean	Warm	
												Matig/Moderate	Matig/Moderate
P48T48 R	136	138	126	128	132	135	119	122	-	125	125	-	-
LS 6248 R	146	138	145	142	143	135	125	127	121	126	127	109	109
DM 5953 RSF	136	138	126	126	132	128	120	122	142	124	127	110	110
SSS 5449 (tuc)	168	138	126	132	141	125	124	127	106	126	122	107	107
NS 5009 R	166	138	126	126	139	121	119	123	106	123	118	113	113
NS 5258 R	146	138	126	126	134	121	124	122	106	125	120	111	111
PAN 1532 R	182	138	141	132	148	125	130	127	106	129	123	111	111
LDC 5.3	182	138	145	139	151	135	128	127	106	130	125	114	114
DM 5351 RSF	136	138	126	126	132	128	122	127	106	124	121	110	110
Y 540	-	138	-	139	139	-	-	-	-	-	-	-	-
SSS 5052 (tuc)	166	138	145	142	148	128	129	133	119	130	128	116	116
NA 5509 R	146	138	149	142	144	128	134	141	119	131	131	117	117
LS 6851 R	159	138	145	139	145	121	135	130	119	128	127	113	113
PAN 1521 R	146	138	139	128	138	128	127	127	116	131	126	117	117
DM 5302 RSF	182	138	139	139	150	121	126	121	106	127	120	112	112
NS 5909 R	182	152	161	142	159	124	134	137	106	134	127	120	120
LDC 5.9	166	152	145	139	151	128	88	127	121	134	120	115	115
DM 5901 RSF	159	145	145	139	147	135	134	141	106	133	130	114	114
LS 6860 R	166	152	161	145	156	124	137	147	119	133	132	119	119
LS 6164 R	166	152	145	142	151	124	135	127	119	135	128	116	116
P61T38 R	166	145	145	139	149	118	138	133	121	132	128	117	117
Y 605	-	-	-	-	-	-	-	-	-	127	127	-	-
LS 6161 R	182	152	161	142	159	135	134	133	151	134	137	121	121
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	-	-	120	120
Y 627	-	-	-	-	-	-	128	132	137	121	134	130	122
DM 6663 RSF	-	-	-	-	-	-	119	136	137	95	135	124	121
NS 6448 R	166	152	145	142	151	124	137	147	119	135	132	119	119
P64T39 R	182	159	161	142	161	124	139	133	119	135	130	119	119
Y 657	-	-	-	-	-	135	134	137	142	136	137	122	122
PAN 1644 R	182	152	161	142	159	135	135	137	151	134	138	122	122
PAN 1653 R	182	145	161	142	158	128	142	137	126	137	134	122	122
LS 6868 R	182	166	161	145	164	154	142	137	151	137	144	120	120
DM 6.81 RR	-	-	-	-	-	154	139	133	151	139	143	123	123
DM 6968 RSF	-	-	-	-	-	-	-	-	-	-	-	124	124
P71T74 R	-	-	-	-	-	154	140	144	151	139	146	126	126
Gem/Mean	165	144	144	137	147	130	130	132	131	129	129	117	117

Tabel 6 Die aantal dae vanaf plant tot oesstadium van die verskillende sojaboontkultivars by die verskillende proef lokaliteite, 2018/19
 Table 6 The number of days from planting to maturity of the different soybean cultivars at the different trial localities, 2018/19

Kultivar Cultivar	Bapsfontein Bethlehem	Carnes Klirross	Koksstad Kroonstad	Bergriville Cedara	Kroonstad Bøekefstrand	Matig/Moderate		Warm	
						Gem/Mean	Stoffberg	Gem/Mean	Gem/Mean
Koel/Cool									
P48T48 R	134	168	168	150	149	154	163	140	141
LS 6248 R	140	178	168	161	167	163	163	145	145
DM 5983 RSF	137	173	168	145	167	158	163	140	141
SSS 5449 (tuc)	146	173	168	156	167	162	163	141	141
NS 5009 R	137	177	168	145	149	155	163	140	141
NS 5258 R	131	182	168	140	167	158	163	140	141
PAN 1532 R	150	187	168	161	167	167	163	145	145
LDC 5.3	151	187	168	161	167	167	163	150	145
DM 5351 RSF	136	173	168	145	149	154	163	140	145
Y 540	-	-	168	-	167	168	-	-	-
SSS 5052 (tuc)	150	198	168	161	167	169	163	150	149
NA 5509 R	150	193	168	170	167	169	163	155	151
LS 6851 R	148	182	168	161	167	165	163	155	149
PAN1521 R	149	168	168	161	167	163	163	145	146
DM 5302 RSF	149	188	168	156	167	166	163	140	141
NS 5909 R	158	183	168	165	167	168	163	155	153
LDC 5.9	152	193	168	161	167	168	163	157	149
DM 5901 RSF	154	193	168	161	167	169	163	155	153
LS 8860 R	165	193	168	170	167	172	163	157	153
LS 6164 R	155	193	168	174	167	171	163	161	145
P61T38 R	150	182	168	161	167	166	163	157	153
Y 605	-	-	-	-	-	-	-	-	-
LS 6161 R	152	193	168	161	167	168	163	155	153
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-
Y 627	-	-	-	-	-	-	163	157	153
DM 6663 RSF	-	-	-	-	-	-	163	157	153
NS 6448 R	151	187	168	165	167	168	163	155	153
P64T39 R	156	198	168	174	167	173	163	159	153
Y 657	-	-	-	-	-	-	163	155	153
PAN 1644 R	150	187	168	161	167	167	163	155	154
PAN 1653 R	154	182	168	165	167	167	163	161	154
LS 6868 R	151	198	168	174	167	172	163	161	153
DM 6.8iRR	-	-	-	-	-	-	163	154	158
DM 6968 RSF	-	-	-	-	-	-	-	158	-
P71T74 R	-	-	-	-	-	-	163	161	158
Gem/Mean	148	185	168	160	165	165	163	152	149
							151	150	153
								125	125

Tabel 7 Die planhoogte van die verskillende sojaboontkultivars by die verskillende proef lokaliteite, 2018/19
 Table 7 The plant height of the different soybean cultivars at the different trial localities, 2018/19

Kultivar	Bapsfontein	Bethlehem	Cárenos	Kirkcaldy	Gem/Mean	Greytown	Kroonstad	Matiq/Moderate	Warm		
									Gem/Mean	Stofberg	
P48T48 R	78	63	65	70	36	62	65	68	60	33	-
LS 6248 R	121	82	95	97	67	92	95	92	78	58	90
DM 5053 RSF	91	80	75	77	45	74	60	74	61	52	89
SSS 5449 (tuc)	101	77	70	95	70	83	80	81	80	53	102
NS 5009 R	89	58	70	68	44	66	75	68	61	45	73
NS 5258 R	79	55	85	80	48	69	75	73	62	43	88
PAN1532 R	93	68	70	73	65	74	95	74	66	52	102
LDC 5.3	107	78	80	88	68	84	95	83	75	43	85
DM 5351 RSF	95	67	85	87	61	79	90	80	71	53	98
Y 540	-	-	65	78	44	62	-	-	-	-	-
SSS 5052 (tuc)	106	82	95	100	68	90	105	97	78	62	102
NA 5509 R	103	82	90	112	70	91	75	98	82	57	100
LS 6851 R	96	62	80	78	61	75	75	70	69	33	58
PAN1521 R	110	88	85	100	75	92	100	89	77	57	108
DM 5302 RSF	98	72	70	88	55	77	70	69	67	52	90
NS 5909 R	111	80	100	97	71	92	100	98	82	53	98
LDC 5.9	119	97	95	98	73	96	100	89	77	55	105
DM 5901 RSF	105	73	85	92	67	84	60	80	73	54	100
LS 6860 R	127	90	105	117	84	105	110	109	97	57	122
LS 6164 R	121	93	105	112	75	101	110	104	95	60	100
P61T38 R	97	43	90	82	51	73	75	76	77	30	63
Y 605	-	-	-	-	-	-	-	-	-	-	-
LS 6161 R	116	85	100	97	85	97	90	98	87	58	103
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	-	-
Y 627	-	-	-	-	-	-	-	-	-	-	-
DM 6663 RSF	-	-	-	-	-	-	-	-	-	-	-
NS 6448 R	106	70	90	102	66	87	90	89	84	50	98
P64T39 R	128	87	90	112	77	99	110	118	62	118	135
Y 657	-	-	-	-	-	-	-	-	-	47	46
PAN1644 R	110	78	85	97	66	87	95	85	85	53	103
PAN1653 R	97	58	95	85	61	79	80	82	81	58	105
LS 6868 R	119	78	110	110	66	97	105	96	98	45	90
DM 6.81 RR	-	-	-	-	-	-	-	-	-	104	75
DM 6968 RSF	-	-	-	-	-	-	-	-	-	-	-
P71T74 R	-	-	-	-	-	-	-	-	-	110	103
Gem/Mean	105	75	86	92	64	84	90	89	80	53	98

Tabel 8 Die peulhoogte van die verskillende sojaboontkultivars by die verskillende proef lokalteite, 2018/19
 Table 8 The pod height of the different soybean cultivars at the different trial localities, 2018/19

Cultivar	Koel/Cool	Matig/Moderate										Warm		
		Bapsfontein	Bethlehem	Clarens	Kinross	Koksstad	Bergville	Gem/Mean	Groenstad	Stoffberg	Potchefstroom	Gem/Mean	Globberstad	Gem/Mean
P48T48 R	10	7	5	9	3	7	5	9	12	2	-	1	6	-
LS 6248 R	18	10	10	11	5	11	10	18	14	4	8	5	10	17
DM 5953 RSF	12	9	5	8	4	7	5	9	11	1	9	2	6	10
SSS 5449 (tuc)	10	6	6	13	4	8	6	9	13	2	12	4	8	13
NS 5009 R	7	5	3	6	4	5	6	11	11	1	4	4	6	13
NS 5258 R	7	4	4	9	3	5	7	6	10	1	7	2	5	24
PAN1532 R	12	10	5	8	5	8	5	12	13	4	13	3	8	14
LDC 5.3	13	8	6	12	4	9	5	12	13	2	7	3	7	17
DM 5351 RSF	11	7	3	8	4	6	5	9	13	5	9	2	7	9
Y 540	-	4	8	5	5	5	-	-	-	-	-	-	-	-
SSS 5052 (tuc)	11	11	12	11	5	10	19	18	18	4	12	3	12	24
NA 5509 R	12	7	10	13	3	9	16	18	16	4	8	7	12	18
LS 6851 R	13	8	7	11	5	9	5	15	16	4	6	1	8	6
PAN1521 R	19	8	5	11	4	9	9	16	17	6	9	11	11	28
DM 5302 RSF	13	9	3	10	5	8	9	10	14	2	9	2	8	13
NS 5909 R	16	15	15	12	5	12	17	22	18	8	13	3	14	24
LDC 5.9	17	12	7	9	5	10	10	13	8	2	10	5	8	18
DM 5901 RSF	17	6	5	12	4	9	6	14	15	4	9	4	9	7
LS 6860 R	24	13	8	15	7	13	16	21	21	5	14	4	13	32
LS 6164 R	13	11	14	13	5	11	18	24	19	4	12	4	13	32
P61T38 R	16	10	15	11	5	11	8	21	19	2	12	1	11	9
Y 605	-	-	-	-	-	-	-	-	-	-	-	3	-	-
LS 6161 R	21	9	10	13	5	12	8	20	20	6	10	6	12	22
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	-	-	-	30	30
Y 627	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DM 6663 RSF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NS 6448 R	14	10	12	9	5	10	14	19	18	7	10	2	12	26
P64T39 R	23	10	15	3	12	10	17	21	20	4	8	3	12	26
DM 6.81 RR	-	-	-	-	-	-	-	18	20	5	13	3	13	29
DM 6968 RSF	-	-	-	-	-	-	-	-	-	-	-	-	-	26
P71T74 R	-	-	-	-	-	-	-	17	18	5	13	8	14	27
Gem/Mean	15	9	9	11	4	9	10	16	16	4	10	4	10	20

Tabel 9 Omvalwaarnemings (1-5) van die verskillende sojaboontkultivars by die verskillende proef lokaliteitie, 2018/19
 Table 9 Lodging dat (1-5) of the different soybean cultivars at the different trial localities, 2018/19

Kultivar Cultivar	Koel/Cool Bapsfontein Bethlehem Clarens Kinross	Koel/Cool				Matig/Moderate Grytwon Kroonstad Stoffberg 3 Pofchestrus Gem/Mean				Warm Grootbosdal Grootvlei Gem/Mean	
		Bergvlei Bergvlei Gem/Mean	Cedara Bergvlei Gem/Mean	Grytwon Bergvlei Gem/Mean	Kroonstad B/I 3 Pofchestrus Gem/Mean	Stoffberg B/I 3 Pofchestrus Gem/Mean	Grootbosdal Grootvlei Gem/Mean				
P48T48 R	2,67	1,00	1,00	1,42	1,00	1,00	-	1,00	1,00	-	-
LS 6248 R	3,67	1,00	1,00	1,67	1,00	1,00	1,00	1,00	1,00	1,00	1,00
DM 5953 RSF	2,00	1,00	1,00	1,25	1,00	1,00	1,00	1,00	1,00	1,00	1,00
SSS 5449 (tuc)	2,33	1,00	1,00	1,33	1,00	1,00	1,00	1,00	1,00	1,00	1,00
NS 5009 R	2,33	1,00	1,00	1,33	1,00	1,00	1,00	1,00	1,00	1,00	1,00
NS 5258 R	2,67	1,00	1,00	1,42	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN1532 R	2,33	1,00	1,00	1,33	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LDC 5,3	3,67	1,00	1,00	1,67	3,00	1,00	1,00	1,33	1,00	1,39	1,00
DM 5351 RSF	2,67	1,00	1,00	1,42	1,00	1,00	1,00	1,00	1,00	1,00	1,00
Y 540	-	1,00	1,00	1,00	-	-	-	-	-	-	-
SSS 5052 (tuc)	4,00	1,00	1,00	1,75	1,00	1,00	1,00	1,00	1,00	1,00	1,00
NA 5509 R	4,00	1,00	1,00	1,75	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LS 6851 R	2,33	1,00	1,00	1,33	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN1521 R	3,67	1,00	1,00	1,67	1,00	1,00	1,00	1,67	1,00	1,11	1,00
DM 5302 RSF	3,00	1,00	1,00	1,50	1,00	1,00	1,00	1,00	1,00	1,00	1,00
NS 5909 R	4,00	1,00	1,00	1,75	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LDC 5,9	4,00	1,33	1,00	1,83	5,00	1,00	1,00	2,00	1,00	1,83	1,00
DM 5901 RSF	3,67	1,00	1,00	1,67	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LS 6860 R	4,00	1,00	1,00	1,67	1,92	3,00	1,00	1,00	1,67	1,00	1,44
LS 6164 R	4,00	1,00	1,00	1,75	5,00	1,00	1,00	1,33	1,00	1,72	1,00
P61T38 R	2,67	1,00	1,00	1,42	1,00	1,00	1,00	1,00	1,00	1,00	1,00
Y 605	-	-	-	-	-	-	-	-	1,00	-	-
LS 6161 R	4,00	1,00	1,00	1,75	1,00	1,00	1,00	1,33	1,00	1,06	1,00
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	1,00	1,00
Y 627	-	-	-	-	3,00	1,00	1,00	1,00	1,00	1,33	1,00
DM 6663 RSF	-	-	-	-	4,00	1,00	1,00	1,33	1,00	1,56	1,00
NS 6448 R	4,00	1,00	1,00	1,75	1,00	1,00	1,00	1,00	1,00	1,00	1,00
P64T39 R	4,00	1,00	1,00	1,75	1,00	1,00	1,00	2,67	1,00	1,28	1,00
Y 657	-	-	-	-	2,00	1,00	1,00	1,33	1,00	1,22	1,00
PAN1644 R	4,00	1,00	1,00	1,75	3,00	1,00	1,00	2,00	1,00	1,50	1,00
PAN1653 R	3,67	1,00	1,00	1,33	1,75	1,00	1,00	1,00	1,00	1,00	1,00
LS 6868 R	4,00	0,00	1,00	1,50	1,00	1,00	1,00	1,00	1,00	1,00	1,00
DM 6,81 RR	-	-	-	-	4,00	1,00	1,00	1,67	1,00	1,61	1,00
DM 6968 RSF	-	-	-	-	-	-	-	-	-	1,00	1,00
P71T74 R	-	-	-	-	1,00	1,00	1,00	1,67	1,00	1,11	1,00
Gem/Mean	3,36	0,97	1,00	1,04	1,57	1,74	1,00	1,27	1,00	1,16	1,03

Tabel 10 Groenstam (1-5) van die verskillende sojaboontkultivars by die verskillende proef lokalteite, 2018/19
 Table 10 Greenstem (1-5) of the different soybean cultivars at the different trial localities, 2018/19

Kultivar Cultivar	Koel/Cool	Matig/Moderate										Warm Gem/Mean
		Bethlehem Bapsfontein	Clares Kirkwood	Koksstad Kirkwood	Kinross Kirkwood	Bergvliie Kirkwood	Cedera Kirkwood	Gretwon Kirkwood	Kroonstad Kirkwood	Poelcheftroom Kirkwood	Stofberg Kirkwood	
P48T48 R	2,00	3,33	2,00	1,33	1,00	1,93	1,00	2,67	4,00	-	1,00	1,93
LS 6248 R	3,00	1,67	1,00	1,00	1,00	1,53	1,00	1,00	2,00	3,33	1,00	1,56
DM 5963 RSF	1,67	1,00	2,00	1,33	1,00	1,40	1,00	1,00	1,00	2,00	1,00	1,17
SSS 5449 (tuc)	1,00	2,67	1,00	1,67	1,00	1,47	1,00	1,00	1,67	2,33	1,00	1,33
NS 5009 R	1,00	1,00	1,00	1,33	1,00	1,07	1,00	4,33	2,00	2,67	1,00	2,00
NS 5258 R	1,00	1,33	2,00	1,00	1,00	1,27	1,00	1,00	1,33	2,00	1,00	1,22
PAN 1532 R	2,00	1,67	1,00	1,33	1,00	1,40	1,00	1,00	2,00	2,33	1,00	1,39
LDC 5,3	2,00	2,33	1,00	1,33	1,00	1,53	1,00	1,00	1,67	2,67	1,00	1,39
DM 5351 RSF	2,67	2,00	3,00	1,00	1,00	1,93	1,00	1,67	3,67	3,00	1,00	2,00
Y 540	-	-	1,00	2,00	1,00	1,33	-	-	-	-	-	-
SSS 5052 (tuc)	2,00	1,67	1,00	1,00	1,00	1,33	1,00	1,00	1,00	1,67	4,00	1,00
NA 5509 R	1,33	2,00	1,00	1,33	1,00	1,33	1,00	1,00	1,00	3,33	1,00	1,72
LS 6851 R	1,33	2,33	1,00	1,00	1,00	1,33	1,00	1,00	2,00	3,33	1,00	1,56
PAN 1521 R	1,67	1,67	1,00	1,33	1,00	1,33	1,00	1,00	1,67	2,33	1,00	1,33
DM 5302 RSF	1,33	1,67	2,00	1,33	1,00	1,47	1,00	1,00	2,00	2,33	1,00	1,39
NS 5909 R	4,00	3,33	1,00	1,67	1,00	2,20	1,00	1,00	3,00	3,33	1,00	1,72
LDC 5,9	2,67	2,00	1,00	1,33	1,00	1,60	1,00	1,00	1,67	2,33	1,00	1,33
DM 5901 RSF	3,67	2,00	1,00	1,33	1,00	1,80	1,00	1,00	2,67	2,67	1,00	1,56
LS 6860 R	4,00	1,67	1,00	1,33	1,00	1,80	4,00	1,00	2,67	2,00	1,00	1,94
LS 6164 R	3,33	3,00	1,00	1,33	1,00	1,93	4,00	1,00	3,00	2,33	1,00	2,06
P61T38 R	3,00	2,67	1,00	1,00	1,00	1,73	1,00	1,00	2,67	4,00	1,00	1,78
Y 605	-	-	-	-	-	-	-	-	-	-	1,00	1,00
LS 6161 R	3,33	2,33	1,00	1,67	1,00	1,87	3,00	1,00	2,33	2,00	1,00	1,72
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	-	-	2,00
Y 627	-	-	-	-	-	-	3,00	1,00	1,67	2,67	1,00	1,72
DM 6663 RSF	-	-	-	-	-	-	1,00	1,67	1,33	4,67	1,00	2,06
NS 6448 R	1,67	2,33	1,00	1,00	1,40	1,00	1,00	1,00	2,00	2,33	1,00	1,39
P64T39 R	3,33	2,33	1,00	1,00	1,73	1,00	1,00	1,00	2,33	3,67	1,00	1,67
Y 657	-	-	-	-	-	-	1,00	1,00	1,33	1,67	1,00	1,17
PAN 1644 R	3,00	3,67	1,00	1,00	1,93	3,00	1,00	1,00	1,33	2,33	1,00	1,61
PAN 1653 R	1,33	2,67	1,00	1,00	1,40	1,00	1,00	1,00	1,33	1,00	1,00	1,06
LS 6868 R	3,33	0,00	1,00	1,00	1,27	1,00	1,00	1,00	2,33	2,33	1,00	1,44
DM 6,8 RR	-	-	-	-	-	-	1,00	1,00	4,00	2,33	1,00	1,72
DM 6968 RSF	-	-	-	-	-	-	-	-	-	-	1,00	1,00
P71T74 R	-	-	-	-	-	-	1,00	1,00	5,00	2,67	1,00	1,94
Gem/Mean	2,33	2,09	1,22	1,26	1,00	1,57	1,39	1,04	1,26	2,31	2,60	1,06

Tabel 11 Opspring (1-5) van die verskillende sojaboontkultivars by die verskillende proef lokaliteite, 2018/19
 Table 11 Shattering (1-5) of the different soybean cultivars at the different trial localities, 2018/19

Kultivar Cultivar	Koel/Cool Gem/Mean	Matig/Moderate		Warm	
		Kinross Clarens	Bergriville Gem/Mean	Kroonstad B/I	Stoffberg Potchefstroom Gem/Mean
P48T48 R	1,00	2,00	1,00	1,33	1,00
LS 6248 R	1,00	1,00	1,00	1,00	-
DM 5953 RSF	1,00	2,00	1,00	1,00	3,00
SSS 5449 (tuc)	1,00	1,00	1,00	1,00	2,00
NS 5009 R	1,00	1,00	1,00	1,00	3,00
NS 5258 R	1,00	2,00	1,00	1,00	3,00
PAN 1532 R	1,00	1,00	1,00	1,00	2,00
LDC 5,3	1,00	1,00	1,00	1,00	3,00
DM 5351 RSF	1,00	3,00	1,00	1,67	2,00
Y 540	-	1,00	1,00	-	-
SSS 5052 (tuc)	1,00	1,00	1,00	1,00	-
NA 5509 R	1,00	1,00	1,00	1,00	1,00
LS 6851 R	1,00	1,00	1,00	1,00	1,00
PAN 1521 R	1,00	1,00	1,00	1,00	1,00
DM 5302 RSF	1,00	2,00	1,00	1,33	2,00
NS 5909 R	1,00	1,00	1,00	1,00	2,00
LDC 5,9	1,00	1,00	1,00	1,00	1,00
DM 5901 RSF	1,00	1,00	1,00	1,00	2,00
LS 6860 R	1,00	1,00	1,00	1,00	1,00
LS 6164 R	1,00	1,00	1,00	1,00	1,00
P61T38 R	1,00	1,00	1,00	1,00	2,00
Y 605	-	-	-	-	-
LS 6161 R	1,00	1,00	1,00	1,00	1,00
SSS 6550 (tuc)	-	-	-	-	-
Y 627	-	-	-	1,00	1,00
DM 6663 RSF	-	-	-	1,00	1,00
NS 6448 R	1,00	1,00	1,00	1,00	1,00
P64T39 R	1,00	1,00	1,00	1,00	3,00
Y 657	-	-	-	1,00	2,00
PAN 1644 R	1,00	1,00	1,00	1,00	1,00
PAN 1653 R	1,00	1,00	1,00	1,00	2,00
LS 6868 R	1,00	1,00	1,00	1,00	2,00
DM 6,8i RR	-	-	-	1,00	1,00
DM 6968 RSF	-	-	-	-	1,00
P71T74 R	-	-	-	1,00	1,00
Gem/Mean	1,00	1,23	1,00	1,07	1,05

Tabel 12 Die plantelling drie weke na opkoms (x 1000) van die verskillende sojaboontkultivars by die verskillende proef lokaliteite, 2018/19
 Table 12 The number of plants three weeks after germination(x 1000) of the different soybean cultivars at the different trial localities, 2018/19

Kultivar Cultivar	Bapfontein Bethlehem	Clarens	Kirk Kirkwood	Kloofstad	Kroonstad	Malgrove Moderate	Warm	
							Bergvliel Bergvliel	Bergvliel Bergvliel
P48T48 R	310	243	115	202	269	228	248	229
LS 6248 R	390	267	175	259	261	270	256	278
DM 5983 RSF	368	270	126	244	243	250	245	290
SSS 5449 (tuc)	285	247	111	241	244	226	296	223
NS 5009 R	116	140	5	139	118	104	230	231
NS 5258 R	253	171	92	238	181	187	219	220
PAN 15322 R	389	272	140	264	236	260	248	326
LDC 5.3	280	243	138	198	247	221	231	256
DM 5351 RSF	298	246	103	245	202	219	234	220
Y 540	-	-	6	41	39	29	-	-
SSS 5052 (tuc)	338	221	174	215	196	229	273	303
NA 5509 R	380	249	99	213	217	232	260	272
LS 6851 R	298	277	169	273	284	260	248	259
PAN 1521 R	396	295	149	236	304	276	274	306
DM 5302 RSF	320	246	97	247	206	223	250	266
NS 5909 R	376	258	211	243	305	279	259	277
LDC 5.9	315	264	114	224	194	222	258	209
DM 5901 RSF	273	253	159	223	184	218	267	256
LS 6860 R	272	229	134	202	232	214	263	272
LS 6164 R	344	269	156	227	210	241	285	304
P61T38 R	387	274	148	257	247	263	242	222
Y 605	-	-	-	-	-	-	-	-
LS 6161 R	364	238	206	272	247	266	237	323
SSS 6560 (tuc)	-	-	-	-	-	-	-	-
Y 627	-	-	-	-	-	-	253	289
DM 6663 RSF	-	-	-	-	-	-	270	260
NS 6448 R	364	255	150	253	251	255	305	289
P64T39 R	338	250	191	173	266	244	275	285
Y 657	-	-	-	-	-	242	292	192
PAN 1644 R	280	266	140	237	219	228	289	287
PAN 1653 R	370	277	167	274	306	279	249	291
LS 6868 R	279	0	85	245	192	160	232	245
DM 6.81 RR	-	-	-	-	-	249	204	221
DM 6968 RSF	-	-	-	-	-	-	-	-
P71T74 R	-	-	-	-	-	239	219	232
Gem/Mean	322	239	132	225	226	225	256	269
							201	255
							193	193

Tabel 13 Persentasie ongewenste sade van die verskillende sojaboontkultivars by die verskillende proef lokaliteite, 2018/19
 Table 13 Percentage undesirable seed of the different soybean cultivars at the different trial localities, 2018/19

Kultivar Cultivar	Koel/Cool		Matig/Moderate						Warm	
	Bapsfontein Bethlehem	Kinross Claren	Kokstad Bergriville	Cedara Greytown	Kroonstad Potchefstroom	Stofberg B/1	Gem/Mean	Marble Hall Groblersdal	Agricul- tural Gemeenskap Gem/Mean	
P48T48 R	0,35	1,22	0,00	0,15	0,00	0,34	0,00	0,00	2,36	0,53
LS 6248 R	0,51	0,60	0,18	0,53	0,34	0,43	0,00	0,14	0,00	0,11
DM 5963 RSF	0,00	0,67	0,18	0,34	0,00	0,24	0,00	0,17	0,41	0,00
SSS 5449 (tuc)	0,26	0,71	0,92	0,08	0,00	0,39	0,05	0,20	0,11	0,08
NS 5009 R	0,40	0,52	0,22	0,00	0,00	0,23	0,00	0,00	0,00	0,00
NS 5258 R	0,00	0,55	0,17	0,64	0,04	0,28	0,00	0,32	0,57	0,00
PAN 1532 R	0,59	0,16	0,12	0,04	0,00	0,18	0,23	0,22	0,00	0,13
LDC 5,3	0,21	0,98	0,60	0,11	0,04	0,39	0,07	0,28	0,08	0,00
DM 5351 RSF	0,00	1,51	0,60	0,29	0,00	0,48	0,00	0,33	0,05	0,00
Y 540	0,00	0,00	0,12	0,00	0,04	0,03	-	-	0,94	0,27
SSS 5052 (tuc)	0,00	0,60	0,22	0,18	0,08	0,22	0,19	0,00	-	-
NA 5509 R	0,00	0,67	0,16	0,00	0,12	0,19	0,87	0,18	0,00	0,16
LS 6851 R	0,64	0,74	0,10	0,22	0,41	0,42	0,37	0,47	0,00	0,15
PAN 1521 R	0,23	1,71	0,28	0,51	0,06	0,56	0,39	0,10	0,00	0,00
DM 5302 RSF	0,00	0,00	0,15	0,00	0,00	0,03	0,33	0,10	0,00	0,00
NS 5909 R	0,19	0,45	0,20	0,26	0,20	0,26	0,92	0,10	0,00	0,23
LDC 5,9	0,17	0,59	0,50	0,60	0,04	0,38	0,31	0,41	0,00	0,40
DM 5901 RSF	0,82	0,79	0,12	0,12	0,20	0,41	0,38	0,00	0,36	0,22
LS 6860 R	0,00	0,22	0,21	0,39	0,08	0,18	0,67	1,07	0,00	0,26
LS 6164 R	0,78	0,57	0,18	0,38	0,29	0,44	0,46	0,26	0,00	0,15
P61T38 R	0,00	1,31	0,06	0,29	0,13	0,36	0,00	0,23	0,00	0,00
Y 605	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
LS 6161 R	0,54	0,21	0,12	0,31	0,17	0,27	0,19	0,18	0,00	0,12
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	0,00
Y 627	-	-	-	-	-	0,57	0,85	0,00	0,46	0,52
DM 6663 RSF	-	-	-	-	-	0,97	0,00	0,22	0,21	0,91
NS 6448 R	0,28	0,17	0,95	0,43	0,18	0,40	0,58	0,27	0,24	0,00
P64T39 R	0,27	0,46	0,26	0,46	0,26	0,34	0,43	0,07	0,02	0,00
Y 657	-	-	-	-	-	0,30	0,11	0,00	0,26	0,00
PAN 1644 R	0,23	0,61	0,25	0,03	0,04	0,23	0,32	0,20	0,00	0,45
PAN 1653 R	0,44	0,58	0,73	1,08	0,17	0,60	0,37	0,00	0,37	0,00
LS 6868 R	0,77	0,73	0,77	0,44	0,13	0,57	0,43	0,07	0,02	0,00
DM 6,81 RR	-	-	-	-	-	0,40	0,03	0,00	0,78	0,48
DM 6968 RSF	-	-	-	-	-	-	-	-	-	0,00
P71T74 R	-	-	-	-	-	0,00	0,00	0,00	0,10	0,00
Gem/Mean	0,27	0,62	0,30	0,28	0,11	0,32	0,31	0,21	0,03	0,19

Tabel 14 Massa van 100 sade (g) van die verskillende sojaboontkultivars by die verskillende proef lokaliteite, 2018/19
 Table 14 Mass 100 seeds (g) of the different soybean cultivars at the different trial localities, 2018/19

Kultivar Cultivar	Koel/Cool		Matig/Moderate						Warm					
	Bapsfontein	Bethlehem	Klofsstad	Kinross	Clares	Bergville	Grytwon	Kroonstad	Potchefstroom	Stoffberg	Brits K2	Groblersdal	Marble Hall	Gem/Mean
P48T48 R	19,23	18,31	15,45	19,39	18,27	18,13	19,90	21,70	23,70	22,93	-	17,96	21,24	-
LS 6248 R	15,70	15,17	12,17	13,97	12,64	13,93	15,23	15,59	19,02	16,29	15,77	14,15	16,01	16,29
DM 5953 RSF	17,22	13,69	14,16	16,31	15,52	15,38	17,25	16,56	19,76	17,75	16,17	13,27	16,79	15,81
SSS 5449 (tuc)	13,31	14,67	12,40	13,40	13,64	15,48	14,26	17,76	15,41	15,11	13,57	15,27	15,96	14,62
NS 5009 R	17,62	18,52	11,65	17,47	16,55	18,97	20,04	25,31	17,40	18,84	15,85	19,40	18,55	19,52
NS 5258 R	15,37	16,81	13,58	14,52	14,09	14,87	17,00	16,00	20,98	17,23	16,78	12,98	16,83	16,17
PAN 1532 R	-	15,32	16,30	13,50	14,99	14,19	14,86	16,25	20,44	17,37	16,91	13,81	16,90	14,52
LDC 5,3	14,91	16,01	14,17	15,08	13,70	14,77	16,44	15,95	18,66	16,71	16,27	15,01	16,51	16,60
DM 5351 RSF	16,28	15,08	12,93	17,06	15,89	15,45	17,02	17,96	22,53	17,91	17,66	15,11	18,03	16,89
Y 540	-	-	13,49	15,05	15,43	14,66	-	-	-	-	-	-	-	-
SSS 5052 (tuc)	14,27	16,15	11,87	14,54	13,14	13,99	15,85	14,02	17,29	16,43	14,76	15,45	15,63	15,85
NA 5509 R	16,72	15,36	13,61	15,90	14,33	15,18	18,66	18,22	19,54	16,84	16,86	15,33	17,57	16,40
LS 6851 R	13,57	16,99	13,52	13,30	13,12	14,10	15,35	15,19	15,50	16,66	17,65	14,62	15,83	14,70
PAN 1521 R	17,18	16,13	13,02	17,09	15,35	15,75	18,49	16,88	19,54	21,02	18,57	15,40	18,32	17,04
DM 5302 RSF	16,75	17,35	14,47	15,67	14,57	15,76	17,66	16,29	18,56	18,34	17,34	16,03	17,37	17,75
NS 5909 R	16,27	17,99	12,91	16,59	14,70	15,69	20,09	17,29	19,47	18,86	17,64	15,38	18,12	15,53
LDC 5,9	17,85	19,48	13,53	16,91	16,37	16,83	18,94	18,21	20,15	20,08	19,65	16,17	18,87	18,13
DM 5901 RSF	15,92	17,93	12,66	15,61	14,94	15,41	17,49	17,31	18,25	18,84	17,78	14,60	17,38	19,08
LS 6860 R	19,33	19,46	13,20	18,09	14,75	16,97	20,01	18,48	17,99	20,37	19,33	16,77	18,83	18,52
LS 6164 R	15,48	16,59	11,32	15,44	13,20	14,40	17,59	17,49	17,47	16,99	16,73	14,84	16,85	14,79
P61T38 R	15,62	17,56	12,93	15,12	14,26	15,10	16,25	17,63	19,38	16,82	16,96	15,78	17,14	17,88
Y 605	-	-	-	-	-	-	-	-	-	-	-	17,01	-	-
LS 6161 R	15,09	16,97	12,74	14,95	13,78	14,70	15,68	16,33	18,76	16,27	16,76	14,84	16,44	16,72
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	-	-	-	16,57	16,57
Y 627	-	-	-	-	-	-	17,97	17,02	19,32	15,94	16,16	16,87	17,21	16,00
DM 6663 RSF	-	-	-	-	-	-	19,18	17,95	20,90	18,60	18,46	17,41	18,75	17,66
NS 6448 R	15,26	17,13	14,05	14,68	13,53	14,93	16,62	16,26	18,13	18,78	15,88	12,14	16,30	15,68
P64T39 R	17,37	18,13	12,71	16,33	14,22	15,75	18,48	17,76	18,41	16,73	18,48	16,43	17,72	15,29
Y 657	-	-	-	-	-	-	16,21	14,66	15,72	15,59	16,22	14,17	15,43	16,23
PAN 1644 R	16,36	17,64	12,74	15,53	14,03	15,26	17,09	15,90	17,93	16,68	17,26	15,47	16,72	16,40
PAN 1653 R	16,13	18,84	12,91	15,15	14,61	15,53	17,84	18,27	17,43	17,60	17,80	16,90	17,64	17,93
LS 6868 R	15,05	17,42	13,41	13,67	13,44	14,60	15,88	15,26	15,17	16,14	16,04	14,40	15,48	17,04
DM 6,81 RR	-	-	-	-	-	-	19,70	17,48	19,31	19,75	19,73	14,87	18,47	18,68
DM 6968 RSF	-	-	-	-	-	-	-	-	-	-	-	-	20,95	21,29
P71T74 R	-	-	-	-	-	-	17,62	17,49	19,37	17,98	19,20	16,06	17,95	17,48
Gem/Mean	16,12	16,99	13,15	15,66	14,55	15,27	17,50	16,96	19,09	17,75	17,29	15,27	17,31	16,93
														17,01

Tabel 15 Oliepersentasie op vogvrye basis van die verskillende sojaboontkultivars by die verskillende proef lokaliteite, 2018/19
 Table 15 Oil percentage on moisture free basis of the different soybean cultivars at the different trial localities, 2018/19

Kultivar Cultivar	Bethlehem Bethlehem	Kiross Kiross	Koel/Cool Matg/Moderate	Warm		
				Gem/Mean Gem/Mean	Cedara Geytwon	Gem/Mean Gem/Mean
P48T48 R	19,90	18,29	19,10	20,02	20,94	20,48
LS 6248 R	19,86	18,75	19,31	20,99	21,17	21,78
DM 5953 RSF	19,16	19,05	19,11	21,60	22,54	22,07
SSS 5449 (tuc)	20,59	19,09	19,84	21,57	22,43	22,00
NS 5009 R	18,34	17,84	18,09	19,20	19,77	19,49
NS 5258 R	19,19	19,14	19,17	20,66	21,47	21,07
PAN 1532 R	19,28	18,79	19,04	20,80	21,06	20,93
LDC 5.3	20,27	19,21	19,74	20,89	21,59	21,24
DM 5351 RSF	19,57	19,78	19,68	21,23	21,41	21,32
Y 540	22,04	19,91	20,98	-	-	-
SSS 5052 (tuc)	21,11	19,06	20,09	20,06	21,33	20,70
NA 5509 R	19,49	17,42	18,46	21,03	21,32	21,18
LS 6851 R	22,17	19,20	20,69	20,81	21,69	21,25
PAN 1521 R	18,92	18,08	18,50	20,35	21,37	20,86
DM 5302 RSF	19,53	17,53	18,53	19,14	20,54	19,84
NS 5909 R	19,65	19,28	19,47	20,07	21,52	20,80
LDC 5.9	19,34	18,14	18,74	20,67	21,24	20,96
DM 5901 RSF	21,14	20,08	20,61	22,15	22,42	22,29
LS 6860 R	19,52	18,68	19,10	24,65	21,91	23,28
LS 6164 R	19,30	17,71	18,51	19,61	20,58	20,10
P6/T38 R	19,22	18,23	18,73	19,51	20,70	20,11
Y 605	-	-	-	-	-	-
LS 6161 R	19,47	19,36	19,42	21,18	21,77	21,48
SSS 6560 (tuc)	-	-	-	-	-	19,96
Y 627	-	-	-	20,18	19,77	19,98
DM 6663 RSF	-	-	-	19,27	19,84	19,56
NS 6448 R	20,91	19,12	20,02	20,25	21,18	20,72
P64T39 R	19,37	17,88	18,63	19,95	20,89	20,42
Y 657	-	-	-	18,79	20,32	19,56
PAN 1644 R	18,82	18,38	18,60	19,96	20,67	20,32
PAN 1653 R	20,71	19,33	20,02	21,04	21,17	21,11
LS 6868 R	18,44	18,80	18,62	21,15	21,28	21,22
DM 6.8i RR	-	-	-	19,86	20,11	19,99
DM 6968 RSF	-	-	-	-	-	21,26
P71T74 R	-	-	-	19,12	19,51	19,32
Gem/Mean	19,83	18,75	19,29	20,51	21,08	20,79
					20,47	22,09
						21,28

Tabel 16 Ru-proteienpersentasie op vogvrye basis van die verskillende sojaboontkultivars by die verskillende proef lokalteite, 2016/17
 Table 16 Percentage crude protein on moisture free basis of the different soybean cultivars at the different trial localities, 2016/17

Kultivar	Cultivar	Koel/Cool	Gem/Mean	Cedara	Greytown	Gem/Mean	Brijts K2	Gem/Mean	Mabube Hail	Gem/Mean	Warm
P48T48 R	40,01	41,57	40,79	40,63	44,05	42,34	-	-	38,90	39,67	-
LS 6248 R	37,85	39,15	38,50	38,70	42,14	40,42	40,44	40,70	39,93	40,32	-
DM 5953 RSF	41,06	40,26	40,66	39,04	41,72	40,38	40,70	39,93	40,93	40,93	-
SSS 5449 (tuc)	39,30	40,08	39,69	39,50	42,79	41,15	42,38	39,47	41,19	41,28	-
NS 5009 R	41,51	42,04	41,78	41,63	43,70	42,67	41,37	41,39	41,39	41,14	-
NS 5258 R	40,51	40,93	40,72	40,08	46,05	43,07	40,88	40,67	40,67	40,52	-
PAN 1532 R	40,55	39,82	40,19	39,30	41,76	40,53	40,37	40,97	41,75	41,36	-
LDC 5,3	39,23	39,42	39,33	40,14	41,65	40,90	40,97	41,75	41,75	41,36	-
DM 5351 RSF	39,73	39,08	39,41	38,15	42,06	40,11	39,98	37,44	38,71	38,71	-
Y 540	37,19	37,91	37,55	-	-	-	-	-	-	-	-
SSS 5052 (tuc)	39,09	38,51	38,80	40,43	40,90	40,67	40,84	40,25	40,25	40,55	-
NA 5509 R	38,75	38,09	38,42	39,45	42,37	40,91	42,96	41,05	42,01	42,01	-
LS 6851 R	36,01	39,71	37,86	39,49	41,83	40,66	40,98	39,55	40,27	40,62	-
PAN 1521 R	40,25	41,16	40,71	41,37	42,47	41,92	40,72	40,52	40,52	40,62	-
DM 5302 RSF	41,97	42,71	42,34	43,63	43,71	43,67	43,31	43,56	43,56	43,44	-
NS 5909 R	40,31	39,92	40,12	41,15	41,47	41,31	41,62	39,86	40,74	40,74	-
LDC 5,9	39,63	41,95	40,79	40,71	42,03	41,37	40,49	40,77	40,77	40,63	-
DM 5901 RSF	36,16	37,85	37,01	37,46	39,55	38,51	38,81	40,45	39,63	39,63	-
LS 6860 R	38,09	40,09	39,09	39,20	40,74	39,97	39,67	39,10	39,39	39,39	-
LS 6164 R	38,04	40,38	39,21	42,42	42,09	42,26	41,30	40,22	40,22	40,76	-
P61T38 R	40,65	39,83	40,24	44,01	42,12	43,07	40,76	41,65	41,65	41,21	-
Y 605	-	-	-	-	-	-	-	-	-	-	-
LS 6161 R	39,85	39,40	39,63	39,40	42,12	40,76	41,40	41,31	41,31	41,36	-
SSS 6560 (tuc)	-	-	-	-	-	-	41,67	40,88	41,28	41,28	-
Y 627	-	-	-	-	39,69	42,19	40,94	39,76	39,96	39,86	-
DM 6663 RSF	-	-	-	-	41,53	41,68	41,61	40,27	40,64	40,46	-
NS 6448 R	37,18	39,73	38,46	41,55	41,63	41,59	40,98	41,31	41,31	41,15	-
P64T39 R	38,05	41,21	39,63	40,16	41,63	40,90	40,94	41,16	41,16	41,05	-
Y 657	-	-	-	-	42,06	41,12	41,59	39,58	41,61	40,60	-
PAN 1644 R	42,51	40,79	41,65	40,95	42,43	41,69	41,64	41,56	41,60	41,60	-
PAN 1653 R	36,79	38,29	37,54	39,88	40,35	40,12	39,09	39,42	39,42	39,26	-
LS 6868 R	41,41	39,71	40,56	39,54	41,87	40,71	41,43	40,40	40,40	40,92	-
DM 6,8i RR	-	-	-	-	37,38	40,80	39,09	39,82	39,78	39,80	-
DM 6968 RSF	-	-	-	-	-	-	41,72	42,13	41,93	40,64	-
P71T74 R	-	-	-	-	39,68	41,81	40,75	39,63	41,65	40,64	-
Gem/Mean	39,32	39,98	39,65	40,27	42,03	41,15	40,83	40,61	40,72	40,72	-

Tabel 17 Gemiddelde van die olie-en protein persentasie saamgevoeg (Protolie), 2016/17
 Table 17 Average of the oil and protein percentage joined (Profat), 2016/17

Kultivar Cultivar	Koel/Cool Betailehem	Matig/Moderate			Warm		
		Kinross	Cedara	Greytown	Brits K2	Marble Hall	Gem/Mean
P48T48 R	59,91	59,86	59,89	60,65	64,99	62,82	-
LS 6248 R	57,71	57,90	57,81	59,69	63,31	61,50	62,22
DM 5953 RSF	60,22	59,31	59,77	60,64	64,26	62,45	62,50
SSS 5449 (tuc)	59,89	59,17	59,53	61,07	65,22	63,15	63,77
NS 5009 R	59,85	59,88	59,87	60,83	63,47	62,15	61,13
NS 5258 R	59,70	60,07	59,89	60,74	67,52	64,13	61,51
PAN 1532 R	59,83	58,61	59,22	60,10	62,82	61,46	61,21
LDC 5,3	59,50	58,63	59,07	61,03	63,24	62,14	62,67
DM 5351 RSF	59,30	58,86	59,08	59,38	63,47	61,43	61,53
Y 540	59,23	57,82	58,53	-	-	-	-
SSS 5052 (tuc)	60,20	57,57	58,89	60,49	62,23	61,36	60,90
NA 5509 R	58,24	55,51	56,88	60,48	63,69	62,09	63,23
LS 6851 R	58,18	58,91	58,55	60,30	63,52	61,91	61,76
PAN 1521 R	59,17	59,24	59,21	61,72	63,84	62,78	60,66
DM 5302 RSF	61,50	60,24	60,87	62,77	64,25	63,51	62,04
NS 5909 R	59,96	59,20	59,58	61,22	62,99	62,11	61,04
LDC 5,9	58,97	60,09	59,53	61,38	63,27	62,33	61,50
DM 5901 RSF	57,30	57,93	57,62	59,61	61,97	60,79	60,85
LS 6860 R	57,61	58,77	58,19	63,85	62,65	63,25	60,59
LS 6164 R	57,34	58,09	57,72	62,03	62,67	62,35	61,77
P61T38 R	59,87	58,06	58,97	63,52	62,82	63,17	60,57
Y 605	0,00	0,00	0,00	0,00	0,00	0,00	-
LS 6161 R	59,32	58,76	59,04	60,58	63,89	62,24	62,00
SSS 6560 (tuc)	-	-	-	-	-	61,63	63,18
Y 627	-	-	-	59,87	61,96	60,92	59,42
DM 6663 RSF	-	-	-	60,80	61,52	61,16	59,20
NS 6448 R	58,09	58,85	58,47	61,80	62,81	62,31	60,48
P64T39 R	57,42	59,09	58,26	60,11	62,52	61,32	61,12
Y 657	-	-	-	60,85	61,44	61,15	58,78
PAN 1644 R	-	-	-	60,91	63,10	62,01	61,32
PAN 1653 R	61,33	59,17	60,25	60,92	61,52	61,22	60,79
LS 6868 R	57,50	57,62	57,56	60,69	63,15	61,92	62,92
DM 6,8i RR	59,85	58,51	59,18	57,24	60,91	59,08	60,61
DM 6968 RSF	-	-	-	-	-	-	62,07
P71T74 R	-	-	-	58,80	61,32	60,06	59,43
Gem/Mean	57,04	56,63	56,83	58,88	61,14	60,01	61,30
							62,70

Tabel 18 Die graanopbrengs van elke kultivar by die verskillende lokalteite, 2018/19
 Table 18 The grain yield of the cultivars at the different localities, 2018/19

Kultivar	Koel/Cool		Matig/Moderate						Warm			
	Bapsfontein	Dieheim	Kinross	Clares	Gem/Mean	Kroonstad	Potchefstroom	Greytown	Brits K2	Groblersdal	Mafube Hall	Gem/Mean
P48T48 R	4375	2716	1929	3621	2056	2939	3892	4848	4089	1744	-	923
LS 6248 R	5001	2642	2017	2611	2713	2997	3564	4672	4144	2020	3334	1270
DM 5953 RSF	4782	3167	2345	4300	2241	3367	3890	4644	3888	2155	3078	1545
SSS 5449 (tuc)	4767	2492	1791	3302	2917	3054	4188	4246	4246	2006	2900	1719
NS 5009 R	4032	2770	1249	2653	2287	2598	3659	4259	4129	954	2678	1392
NS 5258 R	3229	2084	1914	3507	3435	2834	4216	4685	4481	1390	3233	1529
PAN 1532 R	5017	2674	2325	2788	3407	3957	3242	4794	4794	2308	4224	1766
LDC 5.3	5657	2770	2444	3241	3176	3458	3872	4650	4736	1603	3219	1811
DM 5351 RSF	5214	2324	2131	4544	3991	3641	3712	5818	4426	1751	3977	1524
Y 540	-	-	1631	2263	1867	1854	-	-	-	-	-	-
SSS 5052 (tuc)	6108	3063	2234	2847	2278	3306	4045	4568	4609	2605	2996	1878
NA 5509 R	4944	3845	1814	3137	2917	3331	4123	4896	5019	2380	3557	1993
LS 6851 R	5389	2901	2560	3136	3435	3484	4286	5374	4642	1833	3425	1589
PAN 1521 R	5821	2824	2274	3215	3009	3429	4060	4715	4637	2945	3181	1444
DM 5302 RSF	5947	2710	2174	3926	2972	3546	3611	4375	4300	1974	3107	1973
NS 5909 R	6140	2801	1929	2800	2639	3262	4179	5124	5343	1956	3249	1680
LDC 5.9	6077	3964	1680	3284	3907	3783	4102	5563	4725	2395	3562	2707
DM 5901 RSF	5588	2882	2436	3092	3000	3400	4122	4752	5006	2037	3781	2284
LS 6860 R	5391	2737	2142	2719	2796	3157	3011	4709	5026	2331	3111	1672
LS 6164 R	4867	3389	2496	2724	2898	3275	4043	3930	5234	2074	3405	1864
P61T38 R	5452	2353	2372	2600	2991	3153	4323	4801	5202	2450	3304	1427
Y 605	-	-	-	-	-	-	-	-	-	-	1832	1832
LS 6161 R	5245	3315	2056	2961	3185	3352	3812	4546	5006	1950	3333	1767
SSS 6560 (tuc)	-	-	-	-	-	-	-	-	-	-	-	-
Y 627	-	-	-	-	-	-	3738	4725	5422	2376	3494	2249
DM 6663 RSF	-	-	-	-	-	-	2966	4678	5355	1816	3165	1913
NS 6448 R	5232	3202	2129	3313	3167	3409	4667	4857	5632	2429	3493	1552
P64T39 R	5624	4671	2895	3366	3056	3922	4213	5133	5329	2564	3775	1865
Y 657	-	-	-	-	-	-	4055	4968	5107	2252	3575	2475
PAN 1644 R	5167	2788	2169	3436	3565	3425	4344	4555	4969	2142	3001	1938
PAN 1653 R	5183	3089	2073	2519	3028	3178	3778	5359	5080	2192	3617	1473
LS 6868 R	5459	2721	2600	2516	2435	3146	3223	4465	4592	1393	2652	1393
DM 6.81 RR	-	-	-	-	-	-	3110	4901	4972	2600	3276	2014
DM 6968 RSF	-	-	-	-	-	-	-	-	-	-	3479	3735
P71T74 R	-	-	-	-	-	-	3902	5195	5206	2474	3435	2042
Gem/Mean	5220	2957	2141	3127	2932	3242	3892	4790	4818	2100	3331	1766
CV	12.9	16.7	20.4	13.2	13.9	11.7	9.9	6.2	21.8	16.1	9.7	15.7
												6.0
												12.4

Tabel 19 Opbrengswaarskynlikheid (%) van kultivars geëvalueer in 2016/17, 2017/18 en 2018/19 vir die koeler droëland produksiegebiede by verskillende opbrengspotensiaal
Table 16 Yield probability (%) of cultivars in the 2016/17, 2017/18 and 2018/19 for the cooler dryland production areas at different potentials

Kultivar	Opbrengspotensiaal/Yield potential (t/ha)				
	1,0	1,5	2,0	2,5	3,0
LS6248R	49	44	36	28	21
DM593RSF	39	46	55	66	75
SSS5449(tuc)	15	16	19	24	32
PAN1532R	80	77	72	64	53
SSS5052(tuc)	27	22	18	14	11
PAN1521R	40	46	53	62	71
DM5302RSF	54	56	58	61	63
NS5909R	17	18	20	24	31
P61T38R	48	46	43	40	36
LS6161R	56	53	48	44	38
NS6448R	92	90	86	78	65
P64T39R	60	64	67	71	74
					76
					75

Tabel 20 Graanopbrengs (kg/ha^{-1}) van kultivars gedurende die 2017/18 en 2018/19 groeiseisoen ten opsigte van die verskillende lokaliteite wat in die koeler produksiegebiede geleë is
Table 20 Grain yield (kg/ha^{-1}) of cultivars during the 2017/18 and 2018/19 growing season for the various localities situated in the cooler production areas

Kultivar Cultivar	2017/18		2018/19		Gem/Mean
	Bapsfontein Bapsfontein	Bethlehem Bethlehem	Claarens Claarens	Kirkroos Kirkroos	
P48T48 R	5610	2060	3023	3091	1857
LS 6248 R	4380	1561	2115	3434	2014
DM 5953 RSF	5853	3544	3369	2661	2107
SSS 5449 (tuc)	5085	1961	2459	2897	2156
NS 5009 R	4865	1389	2553	2433	2131
NS 5258 R	5462	2972	3752	1722	3450
PAN 1532 R	5222	2286	2863	2447	3637
LDC 5.3	-	-	-	-	-
DM 5351 RSF	5579	2693	3222	3624	2343
Y 540	4967	2758	2173	2639	2486
SSS 5052 (tuc)	5082	1649	1837	1737	3071
NA 5509 R	4466	1343	2646	2930	3391
LS 6851 R	5260	896	2896	2694	2931
PAN 1521 R	4927	2180	2821	2513	3305
DM 5302 RSF	5125	2399	3311	3016	2917
NS 5909 R	4891	1354	1837	1916	3078
LDC 5.9	-	-	-	-	-
DM 5901 RSF	-	-	-	-	-
LS 6860 R	4368	1304	1374	1079	3310
LS 6164 R					
P61T38 R	5551	1871	2659	3123	3437
Y 605	-	-	-	-	-
LS 6161 R	2938	926	2253	1959	3131
NS 6448 R	5543	1703	2699	2208	3698
P64T39 R	5208	1412	2745	2760	3333
PAN 1644 R	-	-	-	-	-
PAN 1653 R	-	-	-	-	-
LS 6868 R	3132	1087	1833	1696	3040
PAN 1454 R	5554	1840	2854	2643	1969
PHB 94 Y 80 R	5375	1763	3865	2711	1331
Y 550	4516	1490	2713	2474	3392
DM 5609 RSF	5697	2028	3031	2027	3427
PHB 96 T 06 R	4843	1223	2481	2566	3939
PAN 1623 R	3515	1404	3056	3590	3876
LS 6862 R	3147	1310	2175	2080	3458
SSS 6560 (tuc)	4777	1416	2378	2725	3032
NS 6267 R	5107	1664	2596	2825	3143
Y 627	5108	1677	2687	3125	3379
DM 6663 RSF	4661	1483	1981	2330	3343
DM 6402 RSF	4774	1402	1646	1199	2651
Y 657	5182	1754	2680	2726	3721
DM 6.8i RR	4936	1359	2381	1924	3517
Gem/Mean	4877	1748	2591	2482	3062

Table 21 Opbrengswaarskynlikheid (%) van kultivars geëvalueer in 2016/17, 2017/18 en 2018/19 vir die matige produksiegebiede by verskillende opbrengspotensiaal
 Table 21 Yield probability (%) of cultivars in the 2016/17, 2017/18 and 2018/19 for the moderate production areas at different yield potentials

Kultivar	Opbrengspotensiaal/Yield potential (t/ha)					
	1,0	1,5	2,0	2,5	3,0	3,5
Cultivar						
LS6248R	49	44	38	33	28	23
DM5953RSF	56	54	52	49	47	45
SSS5449(tuc)	49	43	37	30	25	20
PAN1532R	64	61	57	53	48	44
SSS5052(tuc)	74	69	62	54	46	38
PAN1521R	94	92	89	86	81	75
DM5302RSF	81	76	68	59	49	38
NS5909R	22	28	35	44	53	63
P61T38R	27	34	43	52	62	71
LS6161R	64	60	54	49	42	37
DM6663RSF	25	29	33	38	43	49
NS6448R	17	23	30	39	49	60
P64T39R	37	45	54	63	71	79
DM6_8iRR	44	47	51	55	58	62
						65
						68

Tabel 22 Saadopbrengs (kg/ha^{-1}) van kultivars gedurende die 2017/18 en 2018/19 groeiseisoen ten opsigte van die verskillende lokaliteit wat in die matige droëland produksiegebiede geleë is
 Table 22 Seed yield (kg/ha^{-1}) of cultivars during the 2017/18 and 2018/19 growing season for the various localities situated in the moderate dryland production areas

	Cultivar	2017/18				2018/19			
		Bergvlei	Cedara	Dundee	Greytown	Kroonstad	Olifbergsroom	Poelhoefstraat	Greytown
P48748 R	4357	4343	2499	2272	2679	2402	1346	3189	3892
LS 6248 R	3911	3873	2357	1829	3685	3209	1866	3139	3664
DM 5953 RSF	4165	4066	1752	2661	2200	5139	1701	3512	4644
SSS 5449 (tuc)	3702	1700	1932	3048	3271	1912	3082	4188	4246
NS 5009 R	4111	4331	1324	2130	2791	2818	1375	2968	3659
NS 5258 R	4258	4196	1537	1888	2984	4232	1398	3244	4216
PAN 1532 R	4203	4096	1842	2137	4119	3932	2340	3486	3957
LDC 5.3	-	-	-	-	-	-	-	3872	4650
DM 5351 RSF	4103	4514	2264	1773	2488	5018	1328	3383	3712
SSS 5052 (tuc)	3245	3417	2217	2159	4323	3673	2000	3264	4045
NA 5509 R	3893	3890	2335	1987	4346	3931	1915	3345	4123
LS 6851 R	4351	5269	1981	2075	3653	3475	1173	3405	4286
PAN 1521 R	3545	4155	2734	2140	3967	4277	2806	3569	4060
DM 5302 RSF	4176	4213	2253	2031	3306	2236	2401	3611	4275
NS 5909 R	4183	4352	2294	2060	3295	4534	1835	3431	4179
LDC 5.9	-	-	-	-	-	-	-	4102	5563
DM 5901 RSF	-	-	-	-	-	-	-	4122	4752
LS 6860 R	3570	3563	2332	1785	3832	3532	2278	3195	3011
LS 6164 R	-	-	-	-	-	-	-	4043	5930
P61T38 R	4269	5066	2448	2334	4051	3725	1526	3621	4323
Y 605	-	-	-	-	-	-	-	-	-
LS 6161 R	3960	3741	2304	2116	3252	4705	2049	3133	3812
Y 627	4224	4466	2314	2081	4373	4282	2291	3642	3738
DM 6663 RSF	3326	4905	2391	2187	4290	3156	1638	3401	2966
NS 6448 R	4402	4183	2010	2044	4346	3156	1675	3420	4667
P64T39 R	3165	4698	2356	2304	4136	5275	1326	3558	4213
Y 657	4644	4295	2590	2153	4153	3714	2478	3651	4055
PAN 1644 R	-	-	-	-	-	-	-	4344	4555
PAN 1653 R	-	-	-	-	-	-	-	3778	5359
LS 6838 R	3588	3924	1654	2020	3652	3007	1457	2804	3223
DM 6381 RR	4158	4452	2360	2242	4280	4575	1565	3571	3110
P71T44 R	-	-	-	-	-	-	-	3902	5195
PAN 1454 R	3468	4174	1219	1757	2590	3158	996	2864	-
PHB 94 Y 80 R	4301	4536	1601	1771	1806	2911	2229	3066	-
Y 540	4607	4802	1882	2172	3925	4408	2270	3629	-
Y 550	3749	3962	1732	1918	3139	2778	2173	2996	-
DM 5609 RSF	3985	4259	2555	2196	3802	3341	1793	3454	-
PHB 96 T 06 R	4047	3860	1691	1882	3640	3866	2146	3247	-
PAN 1623 R	3534	3888	2743	2304	3858	3835	2140	3227	-
LS 6862 R	4760	5331	2185	1889	3868	4724	2910	3602	-
SSS 6560 (tuc)	3832	4238	2290	1934	3297	2794	2723	3360	-
NS 6267 R	4599	4279	2015	2197	4078	3298	2960	3529	-
DM 6402 RSF	4098	3663	2258	2209	4153	3622	1423	3263	-
Gem/Mean	4014	4285	2138	2047	3583	3806	1914	3333	3892
								4790	4818
								2100	3331
									1766
									3397

Table 23 Opbrengswaarskynlikheid (%) van kultivars geëvalueer in 2016/17, 2017/18 en 2018/19 vir die warm besproeiings produksiegebiede by verskillende opbrengspotensiaal
 Table 23 Yield probability (%) of cultivars in the 2016/17, 2017/18 and 2018/19 for the warm irrigation production areas at different yield potentials

Kultivar	Opbrengspotensiaal/Yield potential (t/ha)				
	1,5	2,0	2,5	3,0	3,5
LS6248R	43	42	43	44	45
DM5953RSF	91	88	83	73	58
SSS5449(tuc)	44	43	41	40	39
PAN1532R	9	8	7	6	7
SSS5052(tuc)	14	16	21	29	42
PAN1521R	94	94	93	89	83
DM5302RSF	37	37	38	39	42
NS5909R	23	23	23	23	26
P61T38R	78	78	78	76	73
LS6161R	2	3	6	15	39
SSS6560(tuc)	7	10	18	32	56
DM6663RSF	57	57	56	55	53
NS6448R	38	37	36	35	36
P64T39R	51	54	60	65	71
DM6.8iRR	87	85	82	75	66
					52
					41
					4,5

Tabel 24 Graanopbrengs (kg/ha^{-1}) van kultivars gedurende die 2017/18 en 2018/19 groeiseisoen ten opsigte van die verskillende lokaliteite wat in die warm produksiegebiede geleë is
 Table 24 Grain yield (kg/ha^{-1}) of cultivars during the 2017/18 and 2018/19 growing season for the various localities situated in the warm production areas

Kultivar Cultivar	2017/18				2018/19			
	Bm's K2	AgriCo Groblersdal	Marie Taal	Gem/Mean	Bm's K2	AgriCo Groblersdal	Marie Taal	Gem/Mean
LS 6248 R	2629	3397	48112	3613	3578	3716	3212	3502
DM 5953 RSF	2957	3015	3750	3240	3678	4492	4301	4157
SSS 5449 (tuc)	2729	3133	4591	3484	4366	2833	3091	3430
NS 5009 R	2507	3235	5073	3605	2980	4194	3083	3419
NS 5238 R	2294	2356	5353	3334	3763	4242	3360	3788
PAN 1532 R	2443	2737	4404	3195	3323	2919	3728	3323
LDCC 5.3	-	-	-	-	3916	3952	3599	3822
DM 5351 RSF	2776	3258	4840	3624	3933	3900	3751	3861
SSS 5052 (tuc)	2609	3174	4796	3526	4197	4386	4083	4083
NA 5509 R	3080	3080	4621	3989	3282	4683	3551	3838
LS 6851 R	2939	2330	4504	3258	3603	3770	3630	3667
PAN 1521 R	3458	3580	5109	4049	3848	4592	3497	3979
DM 5302 RSF	2748	2780	5164	3564	3570	3825	3090	3495
NS 5909 R	2977	3325	4608	3637	3797	3854	3815	3822
LDC 5.9	-	-	-	-	3828	4027	3846	3901
DM 5901 RSF	-	-	-	-	3374	4158	3350	3627
LS 6860 R	3026	3608	4484	3706	3385	4039	2240	3222
LS 6164 R	-	-	-	-	3207	4514	3531	3751
P61T38 R	3971	4187	5001	4386	2523	4257	3583	3455
LS 6161 R	2572	3215	50812	3623	3263	4132	3447	3614
SSS 6560 (tuc)	2700	4060	5126	3962	3225	4382	3825	3811
Y 627	2333	3716	4130	3393	3740	4121	3652	3838
DM 6663 RSF	3517	4032	4239	3930	4111	4239	3506	3952
NS 6448 R	3580	3624	4624	3943	4319	3910	2724	3651
P64T39 R	3767	3875	5439	4360	3482	4601	3890	3991
Y 657	2692	5035	5105	4277	3666	4229	3948	3948
PAN 1644 R	-	-	-	-	3448	4233	3323	3668
PAN 1653 R	-	-	-	-	3704	4189	3702	3865
LS 5868 R	2888	2766	4711	3455	4060	2786	2991	3279
DM 6.8i RR	3439	3766	4361	3855	3735	3855	3474	3688
DM 6968 RSF	-	-	-	-	3655	3454	4180	3763
P71T74 R	-	-	-	-	4652	4334	3648	4211
Y 550	2194	3245	4256	3232	-	-	-	-
DM 5609 RSF	2078	3115	4849	3347	-	-	-	-
PHB 96 T 06 R	2987	3627	4372	3024	-	-	-	-
P48T48 R	-	-	-	-	-	-	-	-
Y 540	2481	2161	5169	3270	-	-	-	-
DM 5609 RSF	2964	2139	4497	3204	-	-	-	-
PHB 94 Y 80 R	2750	1951	4372	2996	-	-	-	-
P48T48 R	2606	1880	45012	-	-	-	-	-
Y 540	-	-	-	-	-	-	-	-
LS 6862 R	2481	2161	5169	3270	-	-	-	-
NS 6267 R	2582	3427	4618	4718	3907	-	-	-
DM 6402 RSF	2398	3782	4706	3629	-	-	-	-
Gen/Mean	2833	3350	4683	3622	3663	4026	3507	3732

Tabel 25 Saamgevatte inligting van al die lokaliteite vir koeler produksiegebiede, 2018/19
 Table 25 Summarised information for all the localities for cooler production areas, 2018/19

Kultivar/Cultivar	Dae tot blom/ Days to flow- ering	Fisiologies/ typ/ Physiological mature	Oes datum/ Harvest date	Planthoog te/ Plant height	Peulhoog te/ Pod height	Omval/ Lod- ging	Groenstam/ Green stem	Oopsperring/ Shattering	Planttellings/ Number of plants	Percentasie ongewenste sade/Percentage undesirable seed	Massa 100 sade/ Mass 100 seeds	Olie- persen- taste/Oil percentage	Ru- protein- persentasie/ Crude protein percentage	Opprens/ Yield
P48T48 R	62	132	154	62	7	1,42	1,93	1,33	228	0,34	18,13	19,10	40,79	2939
LS 6248 R	69	143	163	92	11	1,67	1,53	1,00	270	0,43	13,93	19,31	38,50	2997
DM 5963 RSF	65	132	158	74	7	1,25	1,40	1,33	250	0,24	15,38	19,11	40,66	3367
SSS 5449 (tuc)	77	141	162	83	8	1,33	1,47	1,00	226	0,39	13,64	19,84	39,69	3054
NS 5009 R	65	139	155	66	5	1,33	1,07	1,00	104	0,23	16,55	18,09	41,78	2598
NS 5258 R	64	134	158	69	5	1,42	1,27	1,33	187	0,28	14,87	19,17	40,72	2834
PAN 1532 R	77	148	167	74	8	1,33	1,40	1,00	260	0,18	14,86	19,04	40,19	3242
LDC 5.3	76	151	167	84	9	1,67	1,53	1,00	221	0,39	14,77	19,74	39,33	3458
DM 5351 RSF	66	132	154	79	6	1,42	1,93	1,67	219	0,48	15,45	19,68	39,41	3641
Y 540	79	139	168	62	5	1,00	1,75	1,00	29	0,03	14,66	20,98	37,55	1854
SSS 5052 (tuc)	77	148	169	90	10	1,75	1,33	1,00	229	0,22	13,99	20,09	38,80	3306
NA 5509 R	81	144	169	91	9	1,75	1,33	1,00	232	0,19	15,18	18,46	38,42	3331
LS 6851 R	72	145	165	75	9	1,33	1,33	1,00	260	0,42	14,10	20,69	37,86	3484
PAN 1521 R	77	138	163	92	9	1,67	1,33	1,00	276	0,56	15,75	18,50	40,71	3429
DM 5302 RSF	76	150	166	77	8	1,50	1,47	1,33	223	0,03	15,76	18,53	42,34	3546
NS 5909 R	81	159	168	92	12	1,75	2,20	1,00	279	0,26	15,69	19,47	40,12	3262
LDC 5.9	76	151	168	96	10	1,83	1,60	1,00	222	0,38	16,83	18,74	40,79	3783
DM 5901 RSF	78	147	169	84	9	1,67	1,80	1,00	218	0,41	15,41	20,61	37,01	3400
LS 6860 R	79	156	172	105	13	1,92	1,80	1,00	214	0,18	16,97	19,10	39,09	3157
LS 6164 R	74	151	171	101	11	1,75	1,93	1,00	241	0,44	14,40	18,51	39,21	3275
P61T38 R	71	149	166	73	11	1,42	1,73	1,00	263	0,36	15,10	18,73	40,24	3153
Y 605	-	-	-	-	-	-	-	-	0,00	-	-	-	-	-
LS 6161 R	77	159	168	97	12	1,75	1,87	1,00	266	0,27	14,70	19,42	39,63	3352
NS 6448 R	79	151	168	87	10	1,75	1,40	1,00	255	0,40	14,93	20,02	38,46	3409
P64T39 R	82	161	173	99	12	1,75	1,73	1,00	244	0,34	15,75	18,63	39,63	3922
PAN 1644 R	80	159	167	87	12	1,75	1,93	1,00	228	0,23	15,26	18,60	41,65	3425
PAN 1653 R	82	158	167	79	11	1,75	1,40	1,00	279	0,60	15,53	20,02	37,54	3178
LS 6868 R	85	164	172	97	13	1,50	1,27	1,00	160	0,57	14,60	18,62	40,56	3146
Gem/Mean	75	147	165	84	9	1,57	1,58	1,07	225	0,32	15,27	19,29	39,65	3242

Tabel 26 Saamgevatte inligting van al die lokaliteite vir matige produkksiegebiede, 2018/19
 Table 26 Summarised information for all the localities for moderate production areas, 2018/19

Kultivar/Cultivar	Dae tot blom/ Days to flower-	Fisiologies typ/ Physiological mature	Oes datum/ Harvest date	Planthoogte/ Plant height	Peulhoogte/ Pod height	Orval/Lod- ging	Groenstam/ Green stem	Oopslag/ Shattering	Plantelling/ Number of plants	Percentasie ongewenste sade/Percentage undesirable seed	Massa 100 sade/Mass 100 seeds	Olie persen- tasië/Oil percentage	Ru- proteïen- persentasie/ Crude protein percentage	Oppbrengs/ Yield
P48T48 R	48	125	147	52	6	1,00	1,93	1,00	230	0,53	21,24	20,48	42,34	3099
LS 6248 R	59	127	150	80	10	1,00	1,56	1,20	237	0,11	16,01	21,08	40,42	3167
DM 5953 RSF	49	127	145	65	6	1,00	1,17	1,20	250	0,23	16,79	22,07	40,38	3200
SSS 5449 (tuc)	57	122	146	77	8	1,00	1,33	1,20	243	0,07	15,27	22,00	41,15	3217
NS 5009 R	49	118	147	62	6	1,00	2,00	1,20	173	0,02	19,40	19,49	42,67	2845
NS 5258 R	53	120	146	65	5	1,00	1,22	1,20	198	0,43	16,83	21,07	43,07	3256
PAN 1532 R	54	123	149	73	8	1,00	1,39	1,00	248	0,13	16,90	20,93	40,53	3587
LDC 5.3	54	125	151	72	7	1,39	1,39	1,00	237	0,17	16,51	21,24	40,90	3315
DM 5351 RSF	49	121	144	74	7	1,00	2,00	1,20	211	0,27	18,03	21,32	40,11	3535
SSS 5052 (tuc)	59	128	153	86	12	1,00	1,61	1,00	252	0,16	15,63	20,70	40,67	3450
NA 5509 R	62	131	155	82	12	1,00	1,72	1,00	242	0,35	17,57	21,18	40,91	3661
LS 6851 R	57	127	153	57	8	1,00	1,56	1,00	231	0,25	15,83	21,25	40,66	3525
PAN 1521 R	61	126	150	86	11	1,11	1,33	1,00	246	0,59	18,32	20,86	41,92	3497
DM 5302 RSF	53	120	145	67	8	1,00	1,39	1,20	239	0,28	17,37	19,84	43,67	3223
NS 5909 R	60	127	156	82	14	1,00	1,72	1,07	245	0,23	18,12	20,80	41,31	3588
LDC 5.9	60	120	155	81	8	1,83	1,33	1,00	212	0,21	18,87	20,96	41,37	3842
DM 5901 RSF	62	130	155	73	9	1,00	1,56	1,00	212	0,22	17,38	22,29	38,51	3664
LS 6860 R	64	132	157	96	13	1,44	1,94	1,00	241	0,35	18,83	23,28	39,97	3310
LS 6164 R	61	128	156	89	13	1,72	2,06	1,00	252	0,40	16,85	20,10	42,26	3425
P61T38 R	62	128	156	58	11	1,00	1,78	1,00	237	0,14	17,14	20,11	43,07	3585
Y 605	65	127	143	46	3	1,00	1,00	1,00	196	0,04	17,01	-	-	1832
LS 6161 R	61	137	156	84	12	1,06	1,72	1,00	230	0,12	16,44	21,48	40,76	3402
Y 627	62	130	157	90	10	1,33	1,72	1,00	243	0,40	17,21	19,98	40,94	3667
DM 6663 RSF	66	124	157	95	13	1,56	2,06	1,00	236	0,39	18,75	19,56	41,61	3315
NS 6448 R	65	132	155	76	12	1,00	1,39	1,20	262	0,38	16,30	20,72	41,59	3772
P64T39 R	64	130	156	86	10	1,28	1,67	1,00	256	0,25	17,72	20,42	40,90	3813
Y 657	65	137	156	82	9	1,22	1,17	1,00	230	0,11	15,43	19,56	41,59	3739
PAN 1644 R	63	138	157	82	9	1,50	1,61	1,00	247	0,16	16,72	20,32	41,69	3492
PAN 1653 R	65	134	157	66	11	1,00	1,06	1,00	245	0,12	17,64	21,11	40,12	3566
LS 6868 R	63	144	158	81	12	1,00	1,44	1,00	217	0,19	15,48	21,22	40,71	2936
DM 6.8i RR	64	143	158	98	13	1,61	1,72	1,00	229	0,28	18,47	19,99	39,09	3479
P71T74 R	65	146	158	94	14	1,11	1,94	1,00	238	0,02	17,95	19,32	40,75	3709
Gem	59	129	153	77	10	1,16	1,58	1,05	233	0,24	17,31	20,79	41,15	3397

Tabel 27 Saamgevatte inligting van al die lokaliteite vir warmer produkseiegebiede, 2018/19
 Table 27 Summarised information for all the localities for warmer production areas, 2018/19

Kultivar/Cultivar	Dae tot blom/ Days to flower-	Fisiologies typ/ Physiological mature	Oes datum/ Harvest date	Planthoogte/ Plant height	Peulhoogte/ Pod height	Orval/Lod- ging	Groen stam/ Green stem	Oopstalling/ Shattering	Plantelling/ Number of plants	Percentasie ongewenste sade/Percentage undesirable seed	Massa 100 sade/Mass 100 seeds	Olie persen- tasië/Oil percentage	Ru- proteïen- persentasie/ Crude protein percentage	Opbrengs/ Yield
LS 6248 R	42	109	119	97	17	1,00	3,00	302	0,20	15,65	22,77	39,67	3502	
DM 5953 RSF	37	110	119	87	10	1,00	2,00	308	0,39	16,74	22,52	40,32	4157	
SSS 5449 (tuc)	43	107	119	86	13	1,00	3,00	310	0,00	15,10	22,55	40,93	3430	
NS 5009 R	40	113	119	94	13	1,00	1,00	309	0,34	18,72	20,52	41,28	3419	
NS 5258 R	39	111	119	105	24	1,00	3,00	308	0,31	15,70	21,15	41,14	3788	
PAN 1532 R	43	111	119	70	14	1,00	2,00	304	0,00	14,75	21,04	40,52	3323	
LDC 5.3	44	114	119	97	17	1,00	3,00	300	0,00	17,57	21,83	41,36	3822	
DM 5351 RSF	36	110	119	85	9	1,00	2,00	289	1,29	17,09	22,48	38,71	3861	
SSS 5052 (tuc)	49	116	119	107	24	1,00	1,00	287	0,42	16,67	20,81	40,55	4083	
NA 5509 R	49	117	126	110	18	2,00	1,00	279	0,00	17,20	21,77	42,01	3838	
LS 6851 R	45	113	119	75	6	1,00	1,00	278	0,00	15,12	21,74	40,27	3667	
PAN 1521 R	47	117	126	106	28	1,00	1,00	275	0,61	17,14	20,82	40,62	3979	
DM 5302 RSF	45	112	119	83	13	1,00	1,00	274	0,00	17,58	19,94	43,44	3495	
NS 5909 R	51	120	126	97	24	1,00	2,00	290	0,55	16,50	21,09	40,74	3822	
LDC 5.9	50	115	119	104	18	1,00	2,00	301	0,28	18,47	21,88	40,63	3901	
DM 5901 RSF	49	114	119	82	7	1,00	1,00	316	0,00	17,49	22,48	39,63	3627	
LS 6860 R	48	119	126	122	32	1,00	1,00	312	0,13	18,84	21,80	39,39	3222	
LS 6164 R	51	116	126	122	32	1,00	2,00	304	1,35	16,25	21,04	40,76	3751	
P61T38 R	52	122	133	74	9	1,00	1,00	300	0,54	17,26	20,34	41,21	3455	
LS 6161 R	51	121	126	104	22	1,00	2,00	299	0,33	16,55	21,09	41,36	3614	
SSS 6560 (tuc)	50	120	126	111	30	1,00	2,00	304	0,87	16,85	21,13	41,28	3811	
Y 627	49	122	133	114	13	1,00	1,00	306	0,00	16,40	21,31	39,86	3838	
DM 6663 RSF	52	121	126	112	8	1,00	1,00	297	4,75	17,94	19,54	40,46	3952	
NS 6448 R	52	119	126	97	26	1,00	3,00	287	0,00	16,32	20,80	41,15	3651	
P64T39 R	52	119	126	113	32	1,00	2,00	273	0,20	16,54	21,14	41,05	3991	
Y 657	54	122	133	117	31	1,00	2,00	272	0,00	15,98	19,93	40,60	3948	
PAN 1644 R	54	122	133	121	29	1,00	1,00	270	0,50	17,28	20,46	41,60	3668	
PAN 1653 R	49	122	133	84	22	1,00	2,00	273	0,00	17,77	22,14	39,26	3865	
LS 6868 R	53	120	126	92	23	1,00	2,00	277	0,00	15,98	22,26	40,92	3279	
DM 6.81 RR	54	123	133	130	29	1,00	1,00	282	1,06	18,53	21,54	39,80	3688	
DM 6968 RSF	55	124	133	123	26	1,00	1,00	286	6,22	20,24	21,34	41,93	3763	
P71T74 R	56	126	133	122	27	1,00	1,00	296	0,57	18,22	19,81	40,64	4211	
Gem	48	117	125	101	20	1,03	1,06	293	0,65	17,01	21,28	40,72	3732	