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Graangewasse
Potchefstroom

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VERSLAG VAN DIE NASIONALE SOJABOON KULTIVARPROEWE/ 2019/20

REPORT OF THE NATIONAL SOYBEAN CULTIVAR TRIALS

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1 INTRODUCTION

The National Soybean Cultivar Trials (project M101/62 (P05000002) were planted for the 42th successive year this past growing season. A total of 18 trials (of the planned 21 trials) were planted at 18 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 and 28 cultivars. 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.

Three (3) of the 18 trials planted could not be included (16.7%) in the report compared to the eight (8) out of 22 trials (36.4%) in the 2018/19 season.

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

1 Delmas – Not harvested due to Covid 19 restrictions.
2 Brits – Flooding. Trial terminated.
3 Potchefstroom (Seed Co) – Not harvested due to Covid 19 restrictions.

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 Schweizer Reneke) and the longest in the cooler areas (80 days at Clarens).

The number of days to physiological maturity is shown in Table 5. The longest average days to maturity was experienced at Clarens (143 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 103 cm (highest) in the cool area compared to 46 cm (lowest) of the determinate cultivar P61T38 R (MG 6.1) in the warm region.

The average plant height between localities varied from a mean of 55 cm at Stoffberg to 98 cm at Bergville.

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 cultivar LS 6860 R (MG 6.0; indeterminate), had a mean pod height of 16 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), PAN 1521 R (MG 5.7; indeterminate), LS 6161 R (MG 6.1; indeterminate), PAN 1555 R (MG 5.7, indeterminate), DM 6.8i RR (MG 6.8; indeterminate) and DM 6968 RSF (MG 6.9; indeterminate).

P48T48 R (MG 4.8; indeterminate), DM 5953 RSF (MG 4.8; indeterminate) and LDC 5.3 (MG 5.3; indeterminate) and LS 6851 R (VG 5.5) (determinate) had the lowest reading of 4 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 DM 6968 RSF, NA 5509 R, PAN 1663 R, LS 6868 R at Bergville in the moderate area.

3.2.5 Green stem (Table 10)

A high percentage of green stem, was recorded at Stoffberg and Hoopstad while the cultivars DM 5351 RSF, PAN 1575 R, DM 6968 RSF and NS 5909 R showed an above average tendency for green stem for all the climatic regions. Plants also retained their leaves that could hamper the harvesting process.

3.2.6 Shattering with harvesting (Table 11)

The highest shattering occurred at Stoffberg in the moderate 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. The lowest plants ha^{-1} count were recorded at Clarens due to a dry spell just after planting.

3.2.8 Percentage undesirable seed (Table 13)

The lowest mean of 0.17% undesirable seeds was recorded for the cool region. The range varied from 0.66% at Stoffberg 0.07% at Kinross.

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

The variation in seed mass among localities ranged between 13.57 g 100^{-1} seeds at Clarens to 20.12 g 100^{-1} seeds at Cedara. The highest seed mass was recorded for PAN 1555 R in the moderate region, while SSS 5449 (tuc), had the smallest seed in all the climate regions.

3.2.10 Oil percentage (Table 15)

The cultivar PAN 1663 R had, the highest average oil percentage for all the regions (21.02% cool, 22.08% moderate, 22.54% warm). The average oil percentage are 20.85% for the warm, 20.44% for the moderate and 19.82% for the cool area.

3.2.11 Crude Protein percentage (Table 16)

The cultivar DM 5302 RSF, as the previous seasons had the highest values for all the climate regions (40.20% cool, 41.43% moderate, 42.28% warm). The overall average are 39.67% for the warm, 39.53% for the moderate and 37.99% 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 seasons, 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% change of an above average yield, while a 40% probability indicated a 10% change of getting a below average yield.

DM 5351 RSF and PAN 1521 R showed an above average yield probability (Table 19) for all the yield potentials in the cool area. For the moderate area LS 6860 R and DM 6.8i RR showed above average figures over the whole production potential range (Table 21 and 23). P61T38 R also performed above average for the warm areas (Table 23).

Localities, co-operators and addresses of the cultivar trials, 2019/20

Nr No	Lokaliteit Locality	Adres van proeflokaliteit Adress of trial locality	Tel. no. Tel. nr.	Verantwoordelike beampte Responsible officer
1	Bapsfontein	Corteva Agriscience Research Centre Farm Olifantsfontein R50 Modderfontein Road Delmas 2210	013 665 2251/082 969 1981	A Mathebula
2	Belfast	G Roos Geluk Belfast 1100	082 375 8999	L Bronkhorst
3	Bergville	J Jackson Shamrock H4 Bergville 3350	082 388 0311	R Wessels
4	Bethlehem	Kleingraan Instituut Bethlehem 9700	082 375 8999	L Bronkhorst
5	Bossies	-	082 375 8999/083 660 2521	G de Beer & L Bronkhorst
6	Brits K2	K2 Navorsingstasie Brits 0250	071 601 5092	D Leeuwner
7	Cedara	Cedara P/bag X9059 Pietermaritzburg 3200	033-355 9495/079 898 5522	J Arathoon
8	Clarens	D Terblanche Taillefert Clarens 9707	082 388 0311	R Wessels
9	Delmas-Pannar	Pannar Saad Navorsingsplaas Posbus 439 Delmas 2210	013-665 8524/082 969 1981	A Mathebula
10	Greytown	Pannar Proefplaas Posbus 19 Greytown 3250	033-413 9639	A Jarvie
11	Groblersdal (Agricol)	R Louw De Wagensrift B5 Suite 38 postnet Groblersdal 0470	083 625 4906/081 016 7848	R van Niekerk & C Schoeman
12	Hoopstad	R Taljaard Posbus 120 Hoopstad 9479	082 375 8999/083 660 2521	G de Beer & L Bronkhorst
13	Kinross	Vosstoffel Boerdery Posbus 80 Kinross 2270	082 375 8999	L Bronkhorst
14	Kroonstad	Hoërskool Kroonstad Kroonstad 9500	082 375 8999	L Bronkhorst
15	Leeudoringstad	H Fouche Sonderhout Leeudoringstad 2640	082 375 8999/083 660 2521	G de Beer & L Bronkhorst
16	Lichtenburg Wes	-	082 375 8999/083 660 2521	G de Beer & L Bronkhorst
17	Marble Hall	P Louw Marble Hall 0450	071 601 5092	D Leeuwner
18	Potchefstroom Seed Co	Seed Co Research Station Potchefstroom 2520	082 314 0959	Khuliso
19	Schweizer Reneke	J du Plessis Schweizer Reneke 2780	082 375 8999/083 660 2521	G de Beer & L Bronkhorst
20	Stoffberg	P Prinsloo Blinkwater Posbus 6 Stoffberg 1056	083 625 4906/081 016 7848	R van Niekerk & C Schoeman
21	Winterton	Terry Muirhead Gouton Farm Partnership, Winterton 3340	084 701 9915	F Middleton

Tabel 1 Sojaboonsaad eienskappe en inligting oor verskaffers, 2019/20
Table 1 Soybean seed characteristics and information about agents, 2019/20

Kultivar Cultivar	Volwassenheids-groeperings Maturity Group	Groeiwyse Growth habit *1	Hilum kleur Hilum colour *2	Blomkleur Flower colour *3	Haarkleur Pubescence *4	Op varieteits lys On variety list	Verskaffer Agent	Telersregte Breeding rights
P48T48 R	4.8	I	BL	W	T	JA/YES	Pioneer	JA/YES
DM 5351 RSF	4.8	I	IB	W	T	JA/YES	GDM Seeds	JA/YES
DM 5953 RSF	4.8	I	IB	P	T	JA/YES	GDM Seeds	JA/YES
SSS 5449 (tuc)	4.9	I	B	P	G	JA/YES	Sensako	JA/YES
DM 5302 RSF	5.3	I	LB	P	G	JA/YES	GDM Seeds	JA/YES
LDC 5.3	5.3	I	B	W	G	JA/YES	Louise Dreyfus	NEE/NO
SSS 5052 (tuc)	5.5	I	B	W	G	JA/YES	Sensako	JA/YES
NA 5509	5.5	I	BL	P	B	JA/YES	K2	NEE/NO
LS 6851 R	5.5	D	B	P	W	JA/YES	Link Seed	JA/YES
PAN 1575 R	5.5	I	BL	P	T	JA/YES	Pannar	JA/YES
PAN 1521 R	5.7	I	IB	P	G	JA/YES	Pannar	JA/YES
PAN 1555 R	5.7	I	B	P	T	JA/YES	Pannar	JA/YES
NS 5909 R	5.9	I	IB	P	G	JA/YES	K2	NEE/NO
LDC 5.9	5.9	I	LB	W	B	JA/YES	Louise Dreyfus	NEE/NO
DM 5901 RSF	5.9	I	LB	W	G	JA/YES	GDM Seeds	JA/YES
LS 6860 R	6.0	I	B	P	W	JA/YES	Link Seed	JA/YES
LS 6164 R	6.0	I	LB	W	G	JA/YES	Link Seed	JA/YES
PAN 1663 R	6.0	I	IB	P	G	JA/YES	Pannar	JA/YES
P61T38 R	6.1	D	LB	W	G	JA/YES	Pannar	JA/YES
LS 6161 R	6.1	I	IB	P	B	JA/YES	Link Seed	JA/YES
SSS 6560 (tuc)	6.2	I	B	W	G	JA/YES	Sensako	JA/YES
NS 6448 R	6.4	SD	LB	P	G	JA/YES	K2	NEE/NO
P64T39 R	6.4	I	KL	W	G	JA/YES	Pannar	JA/YES
PAN 1644 R	6.7	I	IB	P	G	JA/YES	Pannar	NEE/NO
LS 6868 R	6.8	I	B	W	W	JA/YES	Link Seed	JA/YES
DM 6.8i RR	6.8	I	B	P	G	JA/YES	GDM Seeds	JA/YES
DM 6968 RSF	6.9	I	IB	P	G	JA/YES	GDM Seeds	JA/YES
P71T74 R	7.1	I	KL	W	G	JA/YES	Pioneer	JA/YES

*1 D - Bepaald/determinate; I - Onbepaald/indeterminate; SD - Semi-Bepaald/semi deteminate

*2 BL - Swart/black; IB - Onvollodig 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 verbouiingpraktyke by die onderskeie proeflokaliteite van die kultivarproewe, 2019/20
Table 2 General information in connection with soil and cultivation practices at the different trial localities, 2019/20

Lokaliteit Locality	Plantdatum Date of planting	Grondvorm Soil type	Grond ontleding Soil analysis			Bemesting Fertilization			Spasiëring Spacing (cm)	Onkruid beheer Weed control	Koördinate van lokaliteite Co-ordinate of localities	
			pH (H_2O)	P	K	N	P	K				
Bapsfontein/B/I	04/11/2019	-	-	-	-	-	-	-	90	Metagan Gold, Karate, Touchdown, Functional	-26.0871 S	28.5798 O
Belfast	15/11/2019	-	-	-	-	Farmer applied fertiliser			75	Farmer sprayed	25°49'58.9" S	030°04'51.3" O
Bergville/B/I	21/11/2019	-	-	-	-	-	-	-	90	-	28°44'03.6" S	29°18'48.5" O
Bethlehem/D	12/11/2019 02/12/2019	Avalon	6.98	81	325	3,92	2,1	0	75	Strongarm, Alachlor	28°09'41.9" S	028°18'16.3" O
Bossies/D		Not planted	5.73	13	268	-	-	-	75	-	-26.531064 S	25.516492 O
Brits K2/B/I	03/12/2019	Katspruit	-	-	-	-	-	-	75	-	-25.5255210 S	27.6985630 O
Cedara/D	26/11/2019	Hutton	4.31	10	315	-	19.53	-	45	Metalachlor 915 S, Bateleur Gold,Round-up Power Max	29.542 S	30.265 O
Clarens/D	13/11/2019	-	5.3	30	152	7,56	7,245	0	90	Strongarm, Alachlor	28°19'39.6" S	028°27'25.5" O
Delmas/D	20/11/2019	Sandy loam (Davidson)	-	-	-	-	-	-	90	-	-26.1427 S	28.7215 O
Greytown/D	27/11/2019	Hutton	0	20	0	22.22	33.33	44.44	75	Glyphosate	29°4'56.51" S	30°36'14.39" O
Groblersdal/B/I		Not planted	-	-	-	-	-	-	76	-	-	-
Hoopstad/D	11/12/2019	-	5.95	64	113	6,44	2,1	7,5	75	Round-up	-27.888914 S	25.823288 O
Kinross/D	05/11/2019	-	5.51	70	168	3,36	2,1	0	75	Strongarm, Alachlor	26°22"22.3" S	029°08'53.4" O
Kroonstad/D	13/12/2019	-	-	-	-	7,56	21,735	27	75	Strongarm, Alachlor	27°36'28.4" S	027°13'47.1" O
Leeudoringstad/D	22/11/2019 12/12/2019	-	6.75	14	90	5,32	9,66	10,5	75	Strongarm, Alachlor	27°17'06.3" S	026°16'35.8" O
Lichtenburg Wes/D		Not planted	-	-	-	-	-	-	75	-	-	-
Marble Hall/B/I	20/12/2019	Avalon	6.36	40	60	7,56	2,1	12	75	Farmer sprayed	25°04'10.5" S	029°08'55.2" O
Potchefstroom Seed Co/D	27/11/2019	-	-	-	-	-	-	-	75	-	-26.786 S	27.100 O
Schweizer Reneke/D	23/11/2019 12/12/2019	-	6.49	29	183	5,32	7,245	0	110	Farmer sprayed	26°57'25.9" S	025°21'13.6" O
Stoffberg/D	26/11/2019	Hutton	0	0	0	0	0	0	76	Round-up Power max	-25.436646 S	29.853606 O
Winterton/D	07/12/2019	Oxidic-Hutton	4.4	12	143	13,94	31,35	62,71	75	Round-up	28°55'35.89" S	29°33'08.38" O

Tabel 3 Reënval en besproeiing vir die verskillende lokaliteite (mm), 2019/20
Table 3 Rainfall and irrigation at the different localities (mm), 2019/20

Lokaliteit	Maandelikse reënval (mm)/							Totaal	Besproeiing	Totaal
Locality	Monthly rainfall (mm)							Total	Irrigation	Total
	Okt	Nov	Des	Jan	Feb	Mrt	Apr	*		**
Bethlehem	3,56	42,93	129,54	109,22	71,12	58,67	73,15	488,19	300	788,19
Cedara	29,97	131,31	116,58	155,95	147,31	104,64	76,71	762,47	0	762,47
Greytown	-	-	85,2	96,36	73,29	71,31	70,86	397,02	0	397,02
Schweizer Reneke	0	62	124	91	60	123	70	530	0	530
Stoffberg	0	126	202	144	90	115	78	755	0	755
Winterton	11	52	102	194	95	99	76	629	0	629

* 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 sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 4 The number of days from planting to 50% flowering stage of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool						Matig/Moderate						Warm		
	Bapsfontein	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Bergville	Cedara	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Schweizer-Reneke	Gem/Mean
P48T48 R	60	49	56	71	44	56	42	55	33	47	44	44	39	41	40
DM 5351 RSF	60	49	56	71	44	56	42	55	33	44	44	44	39	35	37
DM 5953 RSF	60	49	63	71	47	58	42	55	33	41	46	43	37	40	38
SSS 5449 (tuc)	69	63	73	71	57	67	49	65	47	47	47	51	52	41	46
DM 5302 RSF	70	63	73	74	55	67	42	64	39	49	53	49	54	45	50
LDC 5.3	71	75	73	71	57	69	56	63	47	49	47	52	41	44	42
SSS 5052 (tuc)	71	70	77	76	60	71	56	67	64	57	54	60	49	46	48
NA 5509 R	71	70	89	73	63	73	63	68	47	58	52	58	52	49	51
LS 6851 R	69	63	73	71	58	67	49	64	47	49	51	52	50	51	51
PAN 1575 R	71	70	77	71	59	70	49	64	64	49	51	55	55	48	52
PAN 1521 R	73	70	77	80	62	72	66	68	64	55	61	63	54	52	53
PAN 1555 R	74	75	77	80	65	74	56	69	64	58	64	62	54	49	51
NS 5909 R	75	75	94	82	67	79	67	68	59	58	48	60	57	46	52
LDC 5.9	70	75	77	71	62	71	63	68	64	58	52	61	52	46	49
DM 5901 RSF	73	70	73	73	59	70	49	67	64	52	63	59	52	49	51
LS 6860 R	76	75	94	73	65	77	70	72	64	59	63	65	53	54	54
LS 6164 R	72	70	89	76	59	73	70	67	64	53	60	63	52	49	51
PAN 1663 R	73	70	82	76	66	73	56	69	64	56	64	62	53	49	51
P61T38 R	73	75	77	76	60	72	63	69	64	59	65	64	56	49	53
LS 6161 R	72	75	77	79	64	73	56	67	64	60	57	61	56	47	52
SSS 6560 (tuc)	72	75	77	80	60	73	63	66	64	52	56	60	57	51	54
NS 6448 R	74	70	77	76	59	71	63	70	52	61	66	62	56	51	54
P64T39 R	73	75	94	76	63	76	67	70	64	58	59	64	57	51	54
PAN 1644 R	73	75	94	79	66	77	63	69	64	59	66	64	56	53	54
LS 6868 R	74	70	94	80	66	77	67	73	52	55	65	62	59	41	50
DM 6.8i RR	72	70	77	80	65	73	67	70	59	59	66	64	58	52	55
DM 6968 RSF	76	70	94	79	66	77	70	68	64	57	66	65	57	48	52
P71T74 R	75	75	94	80	66	78	67	69	64	61	66	65	60	57	58
Gem/Mean	71	69	80	76	60	71	58	66	56	54	57	58	52	48	50

Tabel 5 Die aantal dae vanaf plant tot fisiologiesrypstadium van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20

Table 5 The number of days from planting to physiological maturity of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool				Matig/Moderate					Warm		
	Bethlehem	Clarens	Winterton	Gem/Mean	Bergville	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Schweizer-Reneke	Gem/Mean
P48T48 R	109	128	104	114	118	98	122	118	114	120	121	120
DM 5351 RSF	109	128	114	117	130	98	121	119	117	120	121	120
DM 5953 RSF	109	128	108	115	118	98	120	119	114	117	120	119
SSS 5449 (tuc)	130	140	116	129	118	119	122	123	121	127	120	124
DM 5302 RSF	130	140	114	128	118	115	120	121	119	118	122	120
LDC 5.3	126	145	123	131	125	126	128	125	126	120	121	120
SSS 5052 (tuc)	130	145	123	133	125	126	126	131	127	128	125	126
NA 5509 R	126	145	125	132	125	119	129	128	125	127	125	126
LS 6851 R	130	149	118	132	125	126	124	130	126	131	121	126
PAN 1575 R	130	140	120	130	125	119	130	124	125	122	121	122
PAN 1521 R	121	140	118	126	130	119	121	128	125	120	127	123
PAN 1555 R	136	149	126	137	125	126	129	130	127	121	121	121
NS 5909 R	151	149	128	143	130	126	133	131	130	131	123	127
LDC 5.9	130	149	126	135	130	126	133	131	130	129	129	129
DM 5901 RSF	145	140	122	136	125	126	128	126	126	131	125	128
LS 6860 R	151	154	127	144	130	126	132	130	130	134	125	129
LS 6164 R	135	145	125	135	137	126	126	128	129	133	123	128
PAN 1663 R	146	128	128	134	126	126	124	130	127	134	125	129
P61T38 R	126	145	130	134	123	126	134	132	129	130	123	126
LS 6161 R	140	140	125	135	130	126	129	131	129	131	125	128
SSS 6560 (tuc)	135	140	126	134	130	126	129	128	128	127	123	125
NS 6448 R	126	145	130	134	130	126	137	132	131	135	125	130
P64T39 R	151	154	128	144	130	126	133	131	130	137	121	129
PAN 1644 R	136	145	127	136	126	126	132	135	130	137	133	135
LS 6868 R	140	154	132	142	-	126	136	134	132	138	128	133
DM 6.8i RR	145	149	130	141	137	126	136	135	133	140	127	134
DM 6968 RSF	156	149	133	146	137	126	138	136	134	138	128	133
P71T74 R	151	154	132	146	137	126	144	137	136	142	137	140
Gem/Mean	134	143	123	134	127	122	129	129	127	129	124	127

Tabel 6 Die aantal dae vanaf plant tot oesstadium van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 6 The number of days from planting to maturity of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool					Matig/Moderate					Warm		
	Belfast	Bethlehem	Clarens	Kinross	Gem/Mean	Bergville	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Schweizer-Reneke	Gem/Mean
P48T48 R	154	136	154	173	154	125	125	131	133	129	134	130	132
DM 5351 RSF	154	136	154	162	152	144	125	131	133	133	131	130	131
DM 5953 RSF	154	136	154	173	154	125	125	131	133	129	131	130	131
SSS 5449 (tuc)	176	156	174	163	167	125	143	131	135	134	140	130	135
DM 5302 RSF	154	156	174	173	164	125	143	131	135	134	131	130	131
LDC 5.3	186	163	181	163	173	144	143	139	135	140	131	130	131
SSS 5052 (tuc)	186	163	174	173	174	144	158	139	139	145	140	140	140
NA 5509 R	186	156	189	186	179	144	143	139	142	142	140	140	140
LS 6851 R	186	156	181	163	172	144	165	139	135	146	140	140	140
PAN 1575 R	165	156	118	163	150	144	143	139	135	140	140	140	140
PAN 1521 R	165	156	174	173	167	144	143	131	142	140	140	130	135
PAN 1555 R	186	163	171	182	176	144	143	139	139	141	140	140	140
NS 5909 R	187	177	189	192	186	144	158	139	142	146	152	140	146
LDC 5.9	186	170	196	182	184	144	143	152	142	145	152	140	146
DM 5901 RSF	186	170	189	192	184	144	143	152	139	145	142	152	147
LS 6860 R	186	177	196	192	188	144	165	152	139	150	152	140	146
LS 6164 R	186	177	189	192	186	151	134	139	142	142	152	140	146
PAN 1663 R	176	163	181	192	178	144	143	139	142	142	152	140	146
P61T38 R	186	177	189	173	181	144	143	152	142	145	140	140	140
LS 6161 R	186	156	181	179	176	144	143	139	147	143	142	140	141
SSS 6560 (tuc)	186	177	189	182	184	144	143	139	147	143	140	130	135
NS 6448 R	187	177	189	182	184	144	143	152	147	147	152	140	146
P64T39 R	186	177	196	192	188	144	158	152	156	152	152	140	146
PAN 1644 R	187	177	196	192	188	144	150	152	156	151	152	140	146
LS 6868 R	186	177	196	192	188	154	165	152	156	157	152	140	146
DM 6.8i RR	186	177	196	192	188	154	165	152	156	157	152	152	152
DM 6968 RSF	186	177	196	192	188	154	165	152	156	157	152	140	146
P71T74 R	187	177	196	192	188	144	165	152	156	154	152	152	152
Gem/Mean	179	165	181	181	176	143	147	142	143	144	144	138	141

Tabel 7 Die planthoogte van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 7 The plant height of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Moderate							Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Bergville	Cedara	Greytown	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	52	62	53	57	43	53	53	70	72	64	50	26	40	54	75	47	22	48
DM 5351 RSF	69	73	72	62	53	67	66	100	90	84	57	50	45	71	65	62	56	61
DM 5953 RSF	66	68	83	65	62	60	67	90	83	73	62	60	45	69	65	60	48	58
SSS 5449 (tuc)	85	90	90	68	70	67	78	95	85	83	68	55	55	73	56	58	54	56
DM 5302 RSF	76	88	82	63	63	60	72	85	75	70	55	45	50	63	80	57	44	60
LDC 5.3	73	88	92	73	63	67	76	105	83	80	65	42	50	71	71	50	49	57
SSS 5052 (tuc)	91	92	93	68	73	77	82	110	88	81	68	70	70	81	90	60	55	68
NA 5509 R	87	88	100	75	77	73	83	95	92	87	67	56	56	75	100	60	61	74
LS 6851 R	59	77	80	57	42	60	62	60	70	73	52	42	35	55	66	52	43	54
PAN 1575 R	80	92	95	72	62	77	80	95	92	82	72	45	55	74	90	63	48	67
PAN 1521 R	87	97	108	85	90	70	90	105	90	79	72	75	62	80	98	62	49	70
PAN 1555 R	86	100	90	75	70	73	82	110	96	85	73	75	60	83	100	65	69	78
NS 5909 R	80	95	95	72	75	70	81	110	92	82	78	70	65	83	100	62	70	77
LDC 5.9	83	103	110	73	88	70	88	100	91	89	78	80	58	83	75	65	68	69
DM 5901 RSF	86	93	90	75	68	63	79	95	84	78	60	71	70	76	90	63	60	71
LS 6860 R	100	102	103	80	77	83	91	110	98	92	80	65	75	87	116	68	86	90
LS 6164 R	99	102	112	77	83	80	92	105	110	91	68	87	60	87	85	72	62	73
PAN 1663 R	80	90	98	73	65	73	80	105	85	82	73	58	52	76	96	65	71	77
P61T38 R	71	77	78	63	47	67	67	65	76	78	57	45	28	58	65	45	29	46
LS 6161 R	95	102	103	83	70	83	89	90	87	94	78	75	63	81	90	63	76	76
SSS 6560 (tuc)	90	88	113	78	80	70	87	105	99	89	72	80	61	84	95	70	78	81
NS 6448 R	78	82	93	70	60	77	77	95	90	89	67	55	60	76	90	58	67	72
P64T39 R	91	102	107	77	93	73	90	110	102	90	78	80	68	88	106	67	78	83
PAN 1644 R	94	97	82	77	80	70	83	100	90	89	67	70	61	80	66	63	71	67
LS 6868 R	87	98	95	70	63	83	83	105	80	85	67	56	44	73	65	58	50	58
DM 6.8i RR	107	118	120	92	92	87	103	110	120	106	63	80	56	89	113	85	90	96
DM 6968 RSF	95	97	97	67	83	87	88	110	100	92	80	50	59	82	85	77	90	84
P71T74 R	107	103	103	84	93	73	94	110	102	96	82	45	48	81	122	83	71	92
Gem/Mean	84	92	94	73	71	72	81	98	90	84	68	61	55	76	86	63	61	70

Tabel 8 Die peulhoogte van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 8 The pod height of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Moderate							Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Bergville	Cedara	Greytown	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	6	9	1	1	4	5	4	5	10	9	1	1	4	5	11	2	1	5
DM 5351 RSF	6	6	4	1	6	5	5	10	11	15	2	5	5	8	4	5	5	5
DM 5953 RSF	7	9	6	2	8	8	7	8	10	11	3	5	5	7	4	4	2	4
SSS 5449 (tuc)	9	8	9	5	9	11	9	8	12	14	4	5	3	8	5	5	4	5
DM 5302 RSF	6	9	7	3	5	6	6	8	13	14	3	3	6	8	9	2	4	5
LDC 5.3	11	9	10	5	6	5	8	13	10	13	3	4	6	8	6	3	3	4
SSS 5052 (tuc)	14	10	10	8	11	13	11	10	15	19	6	6	15	12	15	8	7	10
NA 5509 R	14	12	11	6	9	9	10	10	16	16	3	5	3	9	14	6	6	9
LS 6851 R	9	8	12	3	3	7	7	5	16	18	2	5	1	8	6	4	1	4
PAN 1575 R	12	12	8	1	6	11	8	10	15	16	3	4	7	9	13	7	5	8
PAN 1521 R	8	13	13	7	12	13	11	10	19	18	7	10	11	12	16	7	4	9
PAN 1555 R	15	13	12	6	6	16	12	18	19	20	8	5	13	14	14	7	5	9
NS 5909 R	13	11	16	10	12	18	13	11	19	21	14	14	13	15	14	9	4	9
LDC 5.9	8	14	15	6	5	7	9	10	15	14	6	11	4	10	11	6	10	9
DM 5901 RSF	10	11	11	7	7	9	9	10	14	14	3	5	8	9	12	9	5	9
LS 6860 R	15	11	14	9	8	17	13	10	15	21	9	5	15	13	20	9	19	16
LS 6164 R	15	12	13	7	10	15	12	15	16	21	5	9	5	12	9	8	4	7
PAN 1663 R	10	10	9	5	7	11	9	15	14	15	5	9	6	11	10	8	10	10
P61T38 R	17	12	13	6	6	13	11	10	18	21	9	5	2	11	10	7	1	6
LS 6161 R	17	12	12	10	7	19	13	10	15	18	9	10	8	12	11	7	11	9
SSS 6560 (tuc)	10	12	14	8	9	10	11	18	17	21	7	8	7	13	9	8	8	8
NS 6448 R	13	11	13	10	6	10	11	10	16	21	8	5	5	11	11	4	5	7
P64T39 R	13	13	14	6	11	11	11	19	17	16	8	5	6	12	12	3	8	8
PAN 1644 R	11	11	10	5	4	8	8	12	15	20	3	6	9	11	6	3	5	5
LS 6868 R	12	14	11	6	7	13	11	16	14	20	6	5	3	11	9	4	4	6
DM 6.8i RR	15	13	14	8	11	9	12	17	15	17	9	9	7	12	17	7	11	11
DM 6968 RSF	20	15	14	8	14	16	15	17	15	21	13	5	8	13	9	10	11	10
P71T74 R	19	12	15	9	13	14	14	10	16	19	8	4	4	10	20	8	6	11
Gem/Mean	12	11	11	6	8	11	10	12	15	17	6	6	7	10	11	6	6	8

Tabel 9 Omvalwaarnemings (1-5) van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 9 Lodging dat (1-5) of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Moderate						Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Bergville	Greytown	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	1,67	1,00	1,00	1,00	1,00	1,00	1,11	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
DM 5351 RSF	3,00	1,00	1,00	1,00	1,00	1,00	1,33	4,00	1,00	1,00	1,00	1,00	1,60	1,00	1,00	1,00	1,00
DM 5953 RSF	2,00	1,00	1,00	1,00	1,00	1,00	1,17	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
SSS 5449 (tuc)	2,67	1,00	1,00	1,00	1,00	1,00	1,28	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
DM 5302 RSF	2,67	1,00	1,00	1,00	1,00	1,00	1,28	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LDC 5.3	2,33	1,00	1,00	1,00	1,00	1,00	1,22	1,00	1,33	1,00	1,00	1,00	1,07	1,00	1,00	1,00	1,00
SSS 5052 (tuc)	2,67	1,00	1,00	1,00	1,00	1,00	1,28	1,00	1,33	1,00	1,00	2,00	1,27	1,00	1,00	1,00	1,00
NA 5509 R	2,67	1,00	1,00	1,00	1,00	1,00	1,28	5,00	1,00	1,00	1,00	2,00	2,00	1,00	1,00	1,00	1,00
LS 6851 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,33	1,00	1,00	1,00	1,07	1,00	1,33	1,00	1,11
PAN 1575 R	2,00	1,00	1,00	1,00	1,00	1,00	1,17	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN 1521 R	3,00	1,00	2,00	1,00	1,00	1,00	1,50	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN 1555 R	3,00	1,00	1,00	1,00	1,00	1,00	1,33	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
NS 5909 R	3,33	1,00	1,00	1,00	1,00	1,00	1,39	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LDC 5.9	3,00	1,00	2,00	1,00	1,00	1,00	1,50	4,00	1,00	1,00	1,00	1,00	1,60	1,00	1,00	1,00	1,00
DM 5901 RSF	2,33	1,00	1,00	1,00	1,00	1,00	1,22	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LS 6860 R	3,33	1,00	1,00	1,00	1,00	1,00	1,39	4,00	1,67	1,00	1,00	2,00	1,93	1,00	1,00	1,00	1,00
LS 6164 R	3,33	1,00	2,33	1,00	1,00	1,00	1,61	3,00	1,00	1,00	1,00	2,00	1,60	1,00	1,00	1,00	1,00
PAN 1663 R	2,33	1,00	1,00	1,00	1,00	1,00	1,22	5,00	1,00	1,00	1,00	1,00	1,80	1,00	1,00	1,00	1,00
P61T38 R	2,00	1,00	1,00	1,00	1,00	1,00	1,17	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LS 6161 R	3,00	1,00	1,00	1,00	1,00	1,00	1,33	3,00	1,00	1,00	1,00	2,00	1,60	1,00	1,00	1,00	1,00
SSS 6560 (tuc)	3,00	1,00	2,33	1,00	1,00	1,00	1,56	2,33	1,00	1,00	1,00	2,00	1,47	1,00	1,00	1,00	1,00
NS 6448 R	2,33	1,00	1,00	1,00	1,00	1,00	1,22	3,00	1,00	1,00	1,00	1,00	1,40	1,00	1,00	1,00	1,00
P64T39 R	3,33	1,00	3,00	1,00	1,00	1,00	1,72	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN 1644 R	3,00	1,00	1,00	1,00	1,00	1,00	1,33	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LS 6868 R	2,67	1,00	1,00	1,00	1,00	1,00	1,28	5,00	1,00	1,00	1,00	1,00	1,80	1,00	1,00	1,00	1,00
DM 6.8i RR	3,33	1,00	1,33	1,00	1,00	1,67	1,56	4,00	1,67	1,00	1,00	1,00	1,73	1,00	1,00	1,00	1,00
DM 6968 RSF	4,00	1,67	1,33	1,00	1,00	1,00	1,67	5,00	1,00	1,00	1,00	1,00	1,80	1,00	1,00	1,00	1,00
P71T74 R	3,67	1,00	1,33	1,00	1,00	1,33	1,56	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
Gem/Mean	2,74	1,02	1,27	1,00	1,00	1,04	1,35	2,26	1,08	1,00	1,00	1,21	1,31	1,00	1,01	1,00	1,00

Tabel 10 Groenstam (1-5) van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 10 Greenstem (1-5) of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Moderate						Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Bergville	Cedara	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	1,33	5,00	1,00	1,00	1,00	1,00	1,72	1,00	1,00	2,33	1,00	1,00	1,27	3,00	3,67	1,00	2,56
DM 5351 RSF	1,67	3,33	1,00	1,00	1,00	1,00	1,50	4,00	1,00	1,00	3,00	3,00	2,40	2,00	2,67	1,00	1,89
DM 5953 RSF	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,33	1,00	1,00	1,07	1,00	1,00	1,00	1,00
SSS 5449 (tuc)	1,33	2,00	1,00	1,00	1,00	1,00	1,22	1,00	1,00	1,00	1,00	4,00	1,60	3,00	1,00	1,00	1,67
DM 5302 RSF	1,33	3,00	1,00	1,00	1,00	1,00	1,39	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LDC 5.3	2,33	2,67	1,00	1,00	1,00	1,00	1,50	1,00	1,00	1,00	3,00	3,00	1,80	3,00	1,00	1,00	1,67
SSS 5052 (tuc)	2,00	2,00	1,33	1,00	2,00	1,00	1,56	1,00	1,33	1,00	1,00	2,00	1,27	1,00	1,33	1,00	1,11
NA 5509 R	2,33	1,00	1,00	1,00	1,00	1,00	1,22	1,00	1,00	1,00	1,00	2,00	1,20	1,00	2,00	1,00	1,33
LS 6851 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,67	1,00	5,00	1,93	5,00	2,67	2,67	3,44
PAN 1575 R	1,33	3,67	1,00	1,00	1,00	1,00	1,50	2,00	1,00	1,00	1,00	5,00	2,00	5,00	1,00	1,00	2,33
PAN 1521 R	1,00	3,00	1,00	1,00	1,00	1,00	1,33	1,00	1,00	1,00	1,00	5,00	1,80	1,00	1,33	1,00	1,11
PAN 1555 R	2,33	1,00	1,33	1,00	1,00	1,00	1,28	1,00	1,00	1,00	2,00	2,00	1,40	5,00	1,00	1,00	2,33
NS 5909 R	2,67	2,67	1,00	1,00	1,00	1,00	1,56	1,00	2,00	1,00	1,00	5,00	2,00	5,00	2,00	1,00	2,67
LDC 5.9	2,00	1,33	1,00	1,00	2,00	1,00	1,39	1,00	1,00	1,00	1,00	5,00	1,80	1,00	1,00	1,67	1,22
DM 5901 RSF	2,33	3,00	1,00	1,00	1,00	1,00	1,56	1,00	1,00	1,00	1,00	1,00	1,00	1,00	2,33	1,00	1,44
LS 6860 R	3,00	2,33	1,00	1,00	1,33	1,00	1,61	1,00	1,00	1,33	1,00	3,00	1,47	1,00	1,33	1,00	1,11
LS 6164 R	3,00	1,00	1,00	1,00	1,00	1,00	1,33	1,00	1,00	1,00	2,00	2,00	1,40	3,33	2,33	1,00	2,22
PAN 1663 R	1,67	1,00	1,00	1,00	1,00	1,00	1,11	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
P61T38 R	2,33	2,00	1,00	1,00	2,00	1,00	1,56	1,00	1,33	1,00	1,00	1,00	1,07	4,00	1,67	1,00	2,22
LS 6161 R	3,00	1,00	1,67	1,00	1,33	1,00	1,50	3,00	1,00	1,00	1,00	1,00	1,40	1,00	3,00	1,00	1,67
SSS 6560 (tuc)	2,33	1,00	1,00	1,00	2,00	1,00	1,39	1,00	1,00	1,00	2,00	4,00	1,80	3,00	2,33	1,00	2,11
NS 6448 R	2,00	1,00	1,00	1,00	2,00	1,00	1,33	1,00	1,00	1,00	1,00	4,00	1,60	1,00	1,00	1,00	1,00
P64T39 R	3,67	1,67	1,00	1,00	1,00	1,00	1,56	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN 1644 R	2,33	1,00	1,00	1,00	1,00	1,00	1,22	1,00	1,00	1,00	1,00	1,00	1,00	3,33	1,33	1,00	1,89
LS 6868 R	3,67	3,00	1,00	1,00	1,00	1,00	1,78	1,00	1,00	1,00	1,00	2,00	1,20	3,67	1,67	2,00	2,44
DM 6.8i RR	3,33	2,00	1,00	1,00	1,00	1,00	1,56	1,00	1,00	1,00	1,00	1,00	1,00	2,33	3,67	1,00	2,33
DM 6968 RSF	3,67	3,67	1,00	1,00	2,00	1,00	2,06	1,00	2,33	2,00	2,00	1,00	1,67	1,00	2,67	2,00	1,89
P71T74 R	3,00	4,00	1,00	1,00	2,00	1,00	2,00	1,00	1,00	1,00	3,00	1,00	1,40	5,00	3,67	1,00	3,22
Gem/Mean	2,25	2,15	1,05	1,00	1,27	1,00	1,45	1,21	1,11	1,13	1,36	2,43	1,45	2,45	1,85	1,15	1,82

Tabel 11 Oopspring (1-5) van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 11 Shattering (1-5) of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Modeerate					Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Cedara	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	1,33	1,00	1,00	1,00	1,67	1,00	1,17	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
DM 5351 RSF	1,33	1,00	1,00	1,00	2,00	1,00	1,22	1,00	1,00	1,00	2,00	1,25	1,00	1,00	1,00	1,00
DM 5953 RSF	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	2,00	1,25	1,00	1,00	1,00	1,00
SSS 5449 (tuc)	1,67	1,00	1,00	1,00	1,00	1,00	1,11	1,00	1,00	1,00	3,00	1,50	1,00	1,67	1,00	1,22
DM 5302 RSF	1,67	1,00	1,00	1,00	1,33	1,00	1,17	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LDC 5.3	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
SSS 5052 (tuc)	1,33	1,00	1,00	1,00	1,00	1,00	1,06	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
NA 5509 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LS 6851 R	1,33	1,00	1,00	1,00	1,00	1,00	1,06	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN 1575 R	1,33	1,00	1,00	1,00	1,00	1,00	1,06	1,00	1,00	1,00	2,00	1,25	1,00	1,00	1,00	1,00
PAN 1521 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	2,00	1,25	1,00	1,00	1,00	1,00
PAN 1555 R	1,33	1,00	1,00	1,00	1,00	1,00	1,06	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
NS 5909 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LDC 5.9	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
DM 5901 RSF	1,33	1,00	1,00	1,00	1,00	1,00	1,06	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
LS 6860 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	2,00	1,25	1,00	1,00	1,00	1,00
LS 6164 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN 1663 R	1,33	1,00	1,00	1,00	1,00	1,00	1,06	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
P61T38 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	2,00	1,25	1,00	1,00	1,00	1,00
LS 6161 R	1,00	1,00	1,00	1,00	1,67	1,00	1,11	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
SSS 6560 (tuc)	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
NS 6448 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	2,00	1,25	1,00	1,00	1,00	1,00
P64T39 R	1,33	1,00	1,00	1,00	1,00	1,00	1,06	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PAN 1644 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	3,00	1,50	1,00	1,00	1,00	1,00
LS 6868 R	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
DM 6.8i RR	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
DM 6968 RSF	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
P71T74 R	1,33	1,00	1,00	1,00	1,00	1,00	1,06	1,00	1,00	1,00	3,00	1,50	1,00	1,00	1,00	1,00
Gem/Mean	1,17	1,00	1,00	1,00	1,10	1,00	1,04	1,00	1,00	1,00	1,46	1,12	1,00	1,02	1,00	1,01

Tabel 12 Die planttelling geoes (x 1000) van die verskillende sojaboonkultivars by die verskillende proeflokaliteite, 2019/20
Table 12 The number of plant harvested (x 1000) of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Moderaste					Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Cedara	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	123	117	285	82	205	259	178	197	179	145	127	162	172	256	111	180
DM 5351 RSF	93	211	312	99	217	267	200	258	141	162	126	172	165	246	105	172
DM 5953 RSF	79	226	333	146	212	312	218	247	204	210	120	196	155	249	108	171
SSS 5449 (tuc)	149	223	298	168	201	299	223	253	170	197	125	186	170	256	160	195
DM 5302 RSF	152	217	306	151	206	304	223	236	154	233	132	189	168	245	161	192
LDC 5.3	122	201	269	169	202	218	197	215	163	207	123	177	167	245	98	170
SSS 5052 (tuc)	182	195	278	134	236	278	217	257	186	165	125	183	203	292	138	211
NA 5509 R	153	183	249	90	202	249	188	230	136	167	126	165	178	257	135	190
LS 6851 R	177	200	313	154	187	301	222	260	162	160	112	174	202	277	151	210
PAN 1575 R	99	117	211	75	178	177	143	197	157	162	119	159	125	256	128	170
PAN 1521 R	141	219	318	143	204	301	221	235	215	203	122	194	173	272	148	198
PAN 1555 R	104	196	293	121	195	252	194	218	188	133	125	166	197	243	69	170
NS 5909 R	176	181	286	129	212	269	209	237	172	192	119	180	155	238	231	208
LDC 5.9	145	183	297	172	193	190	197	206	127	145	120	149	137	239	101	159
DM 5901 RSF	159	192	304	80	213	235	197	181	168	140	123	153	165	254	160	193
LS 6860 R	149	168	277	104	217	263	196	181	160	122	133	149	148	259	116	174
LS 6164 R	144	191	308	146	231	287	218	252	142	158	123	169	200	277	169	216
PAN 1663 R	163	157	277	95	196	280	195	201	148	138	123	153	88	249	117	151
P61T38 R	172	183	307	134	233	270	217	233	154	160	117	166	143	264	172	193
LS 6161 R	190	223	288	166	209	309	231	218	160	195	131	176	153	276	127	186
SSS 6560 (tuc)	157	194	317	125	194	312	217	258	188	215	120	195	157	269	113	179
NS 6448 R	145	176	269	145	224	290	208	250	129	123	124	157	167	258	119	181
P64T39 R	137	201	330	145	209	293	219	269	252	203	123	212	190	260	138	196
PAN 1644 R	109	189	297	106	147	270	186	249	167	170	120	176	125	262	111	166
LS 6868 R	124	171	308	74	192	251	187	174	171	165	127	159	142	256	114	170
DM 6.8i RR	132	209	311	147	222	311	222	279	191	198	122	198	185	279	148	204
DM 6968 RSF	141	92	252	70	181	227	161	140	162	98	116	129	167	254	109	177
P71T74 R	172	195	321	151	224	273	223	218	173	190	116	174	173	257	123	184
Gem/Mean	142	186	293	126	205	270	204	227	169	170	123	172	163	259	131	184

Tabel 13 Persentasie ongewenste sade van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 13 Percentage undesirable seed of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Moderate						Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Cedara	Greytown	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	0,00	0,00	0,00	0,00	0,00	0,23	0,04	0,00	0,38	0,00	0,00	0,11	0,10	0,19	0,00	0,41	0,20
DM 5351 RSF	0,00	0,00	0,10	0,00	0,00	0,05	0,03	0,30	0,36	0,08	0,00	0,73	0,29	0,35	0,00	0,16	0,17
DM 5953 RSF	0,00	0,00	0,22	0,36	0,13	0,56	0,21	0,00	0,23	0,00	0,15	0,00	0,08	0,32	0,00	0,19	0,17
SSS 5449 (tuc)	0,00	0,16	0,56	0,31	0,00	0,12	0,19	0,21	0,18	0,00	0,00	0,52	0,18	0,35	0,00	0,20	0,18
DM 5302 RSF	0,08	0,09	0,14	0,48	0,00	0,26	0,18	0,16	0,58	0,00	0,55	0,26	0,31	0,10	0,36	0,47	0,31
LDC 5.3	0,12	0,30	0,21	0,59	0,14	0,40	0,29	0,00	0,31	0,26	0,37	0,27	0,24	0,24	0,00	0,49	0,24
SSS 5052 (tuc)	0,26	0,00	0,15	0,81	0,00	0,10	0,22	0,00	0,55	0,00	0,24	0,00	0,16	0,00	0,00	0,21	0,07
NA 5509 R	0,16	0,18	0,21	0,43	0,00	0,12	0,18	0,00	0,30	0,00	0,06	1,55	0,38	0,07	0,00	0,30	0,12
LS 6851 R	0,49	0,12	0,45	0,67	0,50	0,00	0,37	0,00	0,55	0,07	0,34	0,75	0,34	0,00	0,00	0,30	0,10
PAN 1575 R	0,27	0,00	0,34	0,09	0,13	0,14	0,16	0,40	0,23	0,00	0,17	1,12	0,38	0,00	0,00	0,33	0,11
PAN 1521 R	0,34	0,15	0,24	0,25	0,00	0,05	0,17	0,22	0,58	0,08	0,10	0,61	0,32	0,00	0,27	0,25	0,17
PAN 1555 R	0,07	0,12	0,00	0,32	0,00	0,11	0,10	0,20	0,32	0,34	0,00	0,37	0,25	0,23	0,00	0,36	0,20
NS 5909 R	0,19	0,64	0,00	0,22	0,00	0,37	0,24	0,00	0,38	0,36	0,11	0,45	0,26	0,11	0,27	0,83	0,40
LDC 5.9	0,08	0,00	0,00	0,13	0,00	0,05	0,04	0,20	0,40	0,00	0,03	0,88	0,30	0,00	0,00	0,61	0,20
DM 5901 RSF	0,07	0,00	0,00	0,36	0,00	0,24	0,11	0,00	0,50	0,26	0,00	0,64	0,28	0,09	0,00	0,32	0,14
LS 6860 R	0,10	0,61	0,22	0,73	0,09	0,07	0,30	0,42	0,77	0,00	0,16	1,22	0,51	0,05	0,00	0,45	0,17
LS 6164 R	0,00	0,00	0,89	0,25	0,00	0,11	0,21	0,31	0,51	0,20	0,18	0,66	0,37	0,09	0,16	0,47	0,24
PAN 1663 R	0,43	0,00	0,00	0,43	0,21	0,24	0,22	0,06	0,83	0,28	0,24	1,69	0,62	0,38	0,00	0,25	0,21
P61T38 R	0,00	0,00	0,00	0,08	0,13	0,22	0,07	0,72	0,42	0,12	0,03	0,59	0,38	0,67	0,00	0,31	0,33
LS 6161 R	0,13	0,00	0,21	0,32	0,00	0,10	0,13	0,33	0,91	0,23	0,13	0,39	0,40	0,00	0,00	0,24	0,08
SSS 6560 (tuc)	0,03	0,00	0,31	0,15	0,00	0,26	0,13	0,18	0,25	0,00	0,07	0,54	0,21	0,28	0,21	0,20	0,23
NS 6448 R	0,16	0,00	0,00	0,17	0,00	0,10	0,07	0,00	0,55	0,00	0,18	0,90	0,33	0,21	0,00	0,25	0,15
P64T39 R	0,33	0,24	0,23	0,39	0,10	0,26	0,26	0,46	0,55	0,11	0,21	0,81	0,43	0,09	0,20	0,02	0,10
PAN 1644 R	0,19	0,00	0,00	0,23	0,09	0,18	0,12	0,22	0,50	0,25	0,00	0,20	0,23	0,00	0,00	0,14	0,05
LS 6868 R	0,18	0,00	0,19	1,40	0,07	0,37	0,37	0,21	0,69	0,09	0,05	0,83	0,37	0,00	0,15	0,15	0,10
DM 6.8i RR	0,21	0,00	0,00	0,46	0,00	0,19	0,14	0,39	0,82	0,14	0,19	0,49	0,41	0,06	0,46	0,16	0,23
DM 6968 RSF	0,18	0,00	0,13	0,21	0,11	0,05	0,11	0,27	0,69	0,28	0,09	1,18	0,50	0,00	0,32	0,47	0,26
P71T74 R	0,40	0,00	0,25	0,31	0,20	0,25	0,24	0,32	0,45	0,35	0,24	0,77	0,43	0,77	0,22	0,04	0,34
Gem/Mean	0,16	0,09	0,18	0,36	0,07	0,19	0,17	0,20	0,49	0,13	0,14	0,66	0,32	0,17	0,09	0,31	0,19

Tabel 14 Massa van 100 sade (g) van die verskillende sojaboonkultivars by die verskillende proef lokaliteite, 2019/20
Table 14 Mass 100 seeds (g) of the different soybean cultivars at the different trial localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Moderate						Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Cedara	Greytown	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	17,99	18,13	18,69	16,66	19,05	20,08	18,43	20,09	21,07	19,71	18,80	17,27	19,39	19,27	18,96	18,20	18,81
DM 5351 RSF	14,70	17,61	16,34	14,31	15,94	17,11	16,00	18,65	17,23	16,43	16,33	14,83	16,70	17,33	17,36	16,53	17,07
DM 5953 RSF	13,75	15,85	17,24	14,47	16,81	16,58	15,78	17,54	16,40	16,46	14,13	17,84	16,48	15,93	17,69	16,13	16,59
SSS 5449 (tuc)	13,41	14,19	14,24	11,71	14,81	13,73	13,68	14,25	14,23	14,14	16,00	12,93	14,31	15,53	15,36	13,93	14,94
DM 5302 RSF	15,98	14,19	14,44	13,99	18,08	15,90	15,43	15,92	16,70	16,83	17,20	13,54	16,04	18,07	16,96	17,87	17,63
LDC 5.3	14,47	14,71	14,46	12,80	14,90	15,95	14,55	16,39	15,22	15,11	15,53	14,25	15,30	17,93	14,88	15,73	16,18
SSS 5052 (tuc)	14,52	15,24	12,63	12,09	14,87	14,45	13,97	14,80	15,03	15,53	17,07	12,87	15,06	16,80	16,68	15,47	16,32
NA 5509 R	15,81	15,98	14,47	13,48	16,56	17,15	15,57	16,85	17,91	16,12	18,73	13,98	16,72	18,93	18,08	16,73	17,91
LS 6851 R	13,37	14,82	13,19	12,76	14,93	13,98	13,84	14,62	13,66	16,11	14,00	12,89	14,26	16,60	16,24	17,60	16,81
PAN 1575 R	16,18	17,62	15,97	13,82	15,93	16,53	16,01	18,40	17,51	17,00	16,93	14,39	16,85	19,53	16,87	16,20	17,54
PAN 1521 R	16,06	15,86	14,94	13,73	18,26	16,77	15,94	17,13	16,17	17,22	16,33	14,21	16,21	18,87	18,75	17,13	18,25
PAN 1555 R	16,87	17,47	16,63	15,13	17,55	17,56	16,87	61,73	17,32	17,99	13,80	15,33	25,24	18,33	17,56	17,53	17,81
NS 5909 R	16,06	16,58	14,85	12,70	17,31	16,00	15,58	16,57	17,52	16,18	14,73	14,60	15,92	16,27	17,44	16,60	16,77
LDC 5.9	17,73	17,99	15,59	15,52	19,60	16,97	17,23	19,17	18,22	18,39	16,27	16,45	17,70	16,13	16,94	17,73	16,93
DM 5901 RSF	16,32	15,52	14,52	13,41	18,76	16,23	15,79	61,21	17,13	15,42	17,73	12,74	24,85	17,13	18,08	17,27	17,49
LS 6860 R	18,49	17,85	16,42	15,18	19,24	17,40	17,43	18,31	17,38	18,52	15,47	16,49	17,23	17,47	20,84	18,67	18,99
LS 6164 R	14,64	14,25	13,27	12,41	16,38	16,10	14,51	15,59	15,47	13,75	16,47	14,76	15,21	15,87	16,91	16,27	16,35
PAN 1663 R	15,18	16,93	14,73	14,28	16,55	15,22	15,48	16,57	17,32	15,70	17,80	14,48	16,37	18,67	16,02	16,13	16,94
P61T38 R	14,94	15,34	15,25	13,02	16,51	15,16	15,04	16,26	16,19	16,56	19,40	13,59	16,40	19,20	16,93	16,20	17,44
LS 6161 R	15,93	15,41	14,41	12,85	15,80	15,17	14,93	16,08	16,21	15,55	18,00	14,19	16,00	15,40	16,94	15,13	15,83
SSS 6560 (tuc)	15,31	15,72	13,44	12,69	15,44	15,08	14,61	16,05	15,88	15,10	15,80	12,98	15,16	16,27	17,27	15,60	16,38
NS 6448 R	15,40	15,60	13,14	12,63	16,96	16,16	14,98	16,98	16,48	15,91	18,00	11,40	15,75	20,20	17,60	16,33	18,04
P64T39 R	16,16	16,25	14,80	13,38	18,19	15,84	15,77	16,84	17,05	15,99	15,67	15,13	16,14	19,20	16,53	17,27	17,67
PAN 1644 R	16,01	15,65	15,04	13,34	18,83	15,39	15,71	17,14	17,90	15,57	16,13	15,19	16,39	18,20	16,67	18,13	17,67
LS 6868 R	14,85	14,07	12,91	12,08	15,09	13,43	13,74	14,64	15,64	14,83	19,07	13,26	15,49	18,00	16,15	15,80	16,65
DM 6.8i RR	18,24	17,09	15,52	13,61	18,35	18,36	16,86	17,86	16,61	17,32	18,80	15,98	17,31	17,27	19,98	16,13	17,79
DM 6968 RSF	19,68	17,18	17,04	15,25	20,09	19,49	18,12	20,51	20,60	18,62	16,80	17,34	18,77	16,40	22,35	18,80	19,18
P71T74 R	16,89	16,89	14,78	12,69	18,10	16,61	16,00	17,07	17,19	15,76	15,53	14,65	16,04	18,00	19,62	17,00	18,21
Gem/Mean	15,89	16,07	14,96	13,57	17,10	16,23	15,64	20,12	16,83	16,35	16,66	14,56	16,90	17,60	17,56	16,72	17,29

Tabel 18 Die graanopbrengs van elke kultivar by die verskillende lokaliteite, 2019/20
Table 18 The grain yield of the cultivars at the different localities, 2019/20

Kultivar Cultivar	Koel/Cool							Matig/Moderate							Warm			
	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean	Bergville	Cedara	Greytown	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	4074	2627	3039	2309	2079	4354	3080	3718	3777	3645	3394	1057	1563	2859	2864	2673	1062	2199
DM 5351 RSF	3909	3761	4113	2506	2780	4807	3646	3274	4286	4183	2720	2669	1204	3056	2824	2797	2426	2682
DM 5953 RSF	3952	3535	4871	3500	5325	4434	4269	4682	3532	3635	3249	2710	1243	3175	3688	3012	2334	3012
SSS 5449 (tuc)	4178	2976	3555	1878	3442	3768	3300	4041	3899	3662	2535	2204	2132	3079	2417	2226	1595	2079
DM 5302 RSF	3578	3664	3086	1966	3677	3954	3321	4284	3883	3713	2312	1981	1593	2961	3257	3415	1779	2817
LDC 5.3	3505	2931	2710	2444	4994	4413	3500	5315	3856	3776	2692	2755	2933	3555	2596	2091	2153	2280
SSS 5052 (tuc)	5309	2420	2675	1525	4446	4407	3464	3422	3447	3121	2804	2642	2155	2932	2949	3012	2197	2719
NA 5509 R	4130	2881	2968	1661	4385	4614	3440	4318	3737	3683	3249	2590	1301	3146	3458	3113	1905	2825
LS 6851 R	3899	3217	2894	2058	2757	4586	3235	4344	3370	3978	2428	2359	1630	3018	3512	3012	2099	2875
PAN 1575 R	3959	3323	2927	1689	4114	4379	3399	3775	4177	3242	2704	1853	1734	2914	2816	3143	1341	2434
PAN 1521 R	3778	3199	3727	3049	5101	4653	3918	3424	3147	3944	2836	2662	1744	2960	3506	3222	2368	3032
PAN 1555 R	3760	3252	2435	1753	4053	4287	3257	4793	4235	3773	2800	2773	1761	3356	3190	2754	2147	2697
NS 5909 R	4112	3355	2407	1806	5136	4816	3605	4270	3747	3806	2647	2493	1650	3102	3785	3139	2601	3175
LDC 5.9	4574	3026	2430	1907	5425	4183	3591	4588	3709	3496	2707	3637	1138	3213	3482	3035	1846	2788
DM 5901 RSF	4855	3077	2818	1825	3990	4556	3520	4837	3801	4257	2779	3413	1856	3491	3497	3478	2542	3173
LS 6860 R	4436	2310	1923	1597	3661	4686	3102	3748	3898	3642	2757	3071	1795	3152	4160	3541	1937	3213
LS 6164 R	3877	3336	2071	1871	3698	4467	3220	3670	3452	3666	2577	2758	2577	3117	2625	3549	2146	2773
PAN 1663 R	4140	3235	2871	1620	3976	4672	3419	4133	3025	3067	2545	1316	1512	2600	3187	3232	1664	2694
P61T38 R	5470	3020	2341	1755	3431	4933	3492	4001	4143	4078	2606	2617	1410	3143	2697	3447	2183	2776
LS 6161 R	4103	2632	2596	1781	3506	4507	3188	3557	3559	3957	2749	2395	1563	2963	3069	3239	2242	2850
SSS 6560 (tuc)	3971	3083	2199	2124	4483	4687	3425	4078	3342	3976	2611	2493	1360	2977	2947	3578	1947	2824
NS 6448 R	4310	3393	2207	1903	2480	4129	3070	4825	4692	3867	2573	3420	1662	3506	3018	3446	2120	2861
P64T39 R	4132	3031	2640	2040	5588	4715	3691	4347	3630	4071	3025	3143	1501	3286	4202	2955	2912	3356
PAN 1644 R	3986	2741	2288	2073	4504	4444	3339	4344	3998	4076	2910	3480	1524	3389	3991	3429	2458	3292
LS 6868 R	3905	2342	2411	1177	3475	4411	2954	3857	3347	3782	2222	2257	1874	2890	2547	1725	1186	1819
DM 6.8i RR	4568	3244	2623	1977	5116	4604	3689	4982	4417	4095	2755	3507	1522	3546	3395	4496	2093	3328
DM 6968 RSF	3667	2464	2304	1380	5016	4468	3216	3184	4400	3812	3008	2250	3056	3285	3034	3733	2456	3074
P71T74 R	4270	3138	2490	1458	5680	4938	3662	3908	3564	4316	3176	2471	991	3071	2954	5001	1851	3269
Gem/Mean	4157	3043	2772	1951	4154	4495	3429	4133	3788	3797	2763	2606	1714	3134	3202	3196	2057	2818
CV	17,6	21,9	16,4	25,9	18,3	9,2		17,3	15,3	7,2	14,9	4,9	3,8		6,3	20,6	5,3	

Tabel 19 Opbrengswaarskynlikheid (%) van kultivars geëvalueer in 2017/18, 2018/19 en 2019/20 vir die koeler droëland produksiegebiede by verskillende opbrengspotensiaal
Table 19 Yield probability (%) of cultivars in the 2017/18, 2018/19 and 2019/20 for the cooler dryland production areas as different yield potentials

Kultivar	Opbrengspotensiaal/Yield potential (t/ha)							
Cultivar	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5
P48T48 R	66	60	54	48	42	36	31	26
DM 5351 RSF	73	73	73	72	71	70	68	66
DM 5953 RSF	88	86	82	78	72	65	57	50
SSS 5449 (tuc)	62	58	52	46	39	34	28	25
DM 5302 RSF	69	66	62	57	52	47	42	38
SSS 5052 (tuc)	51	52	54	56	57	59	60	61
NA 5509 R	18	21	24	29	34	41	48	54
LS 6851 R	23	28	34	42	50	59	67	73
PAN 1521 R	75	71	64	57	49	41	34	28
NS 5909 R	78	77	75	73	70	66	62	59
LS 6860 R	12	17	24	34	46	59	70	79
P61T38 R	33	38	44	51	58	65	70	75
LS 616 1R	42	43	44	45	47	49	50	52
NS 6448 R	16	17	19	22	26	31	36	42
P64T39 R	51	49	48	46	44	42	41	40
LS 6868 R	30	31	32	34	36	38	40	43

Tabel 20 Graanopbrengs (kg/ha^{-1}) van kultivars gedurende die 2018/19 en 2019/20 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 2018/19 and 2019/20 growing season for the various localities situated in the cooler production areas

Kultivar Cultivar	2018/19						2019/20						
	Bapsfontein	Bethlehem	Clarens	Kinross	Kokstad	Gem/Mean	Bapsfontein	Belfast	Bethlehem	Clarens	Kinross	Winterton	Gem/Mean
P48T48 R	4375	2716	1929	3621	2056	2939	4074	2627	3039	2309	2079	4354	3080
DM 5351 RSF	5214	2324	2131	4544	3991	3641	3909	3761	4113	2506	3885	4807	3830
DM 5953 RSF	4782	3167	2345	4300	2241	3367	3952	3535	4871	3500	4183	4434	4079
SSS 5449 (tuc)	4767	2492	1791	3302	2917	3054	4178	2976	3555	1878	3442	3768	3300
DM 5302 RSF	5947	2710	2174	3926	2972	3546	3578	3664	3086	1966	3677	3954	3321
LDC 5.3	5657	2770	2444	3241	3176	3458	3505	2931	2710	2444	4994	4413	3500
SSS 5052 (tuc)	6108	3063	2234	2847	2278	3306	3817	2420	2675	1525	4446	4407	3215
NA 5509 R	4944	3845	1814	3137	2917	3331	4130	2881	2968	1661	4385	4614	3440
LS 6851 R	5389	2901	2560	3136	3435	3484	3899	3217	2894	2058	2757	4586	3235
PAN 1575 R	-	-	-	-	-	-	3959	3323	2927	1689	4114	4379	3399
PAN 1521 R	5821	2824	2274	3215	3009	3429	3778	3199	3727	3049	5101	4653	3918
PAN 1555 R	-	-	-	-	-	-	3760	3252	2435	1753	4053	4287	3257
NS 5909 R	6140	2801	1929	2800	2639	3262	4112	3355	2407	1806	5136	4816	3605
LDC 5.9	6077	3964	1680	3284	3907	3783	4574	3026	2430	1907	5425	4183	3591
DM 5901 RSF	5588	2882	2436	3092	3000	3400	4855	3077	2818	1825	3990	4556	3520
LS 6860 R	5391	2737	2142	2719	2796	3157	4436	2310	1923	1597	3661	4686	3102
LS 6164 R	4867	3389	2496	2724	2898	3275	3877	3336	2071	1871	3698	4467	3220
PAN 1663 R	-	-	-	-	-	-	4140	3235	2871	1620	3976	4672	3419
P61T38 R	5452	2353	2372	2600	2991	3153	4194	3020	2341	1755	3431	4933	3279
LS 6161 R	5245	3315	2056	2961	3185	3352	4103	2632	2596	1781	3506	4507	3188
SSS 6560 (tuc)	-	-	-	-	-	-	3971	3083	2199	2124	4483	4687	3425
NS 6448 R	5232	3202	2129	3313	3167	3409	4310	3393	2207	1903	2480	4129	3070
P64T39 R	5624	4671	2895	3366	3056	3922	4132	3031	2640	2040	5588	4715	3691
PAN 1644 R	5167	2788	2169	3436	3565	3425	3986	2741	2288	2073	4504	4444	3339
LS 6868 R	5459	2721	2600	2516	2435	3146	3905	2342	2411	1177	3475	4411	2954
DM 6.8i RR	-	-	-	-	-	-	4568	3244	2623	1977	5116	4604	3689
DM 6968 RSF	-	-	-	-	-	-	3667	2464	2304	1380	5016	4468	3216
P71T74 R	-	-	-	-	-	-	4270	3138	2490	1458	5680	4938	3662
LS 6248 R	5001	2642	2017	2611	2713	2997	-	-	-	-	-	-	-
NS 5009 R	4032	2770	1249	2653	2287	2598	-	-	-	-	-	-	-
NS 5258 R	3229	2084	1914	3507	3435	2834	-	-	-	-	-	-	-
PAN 1532 R	5017	2674	2325	2788	3407	3242	-	-	-	-	-	-	-
Y 540	-	-	1631	2263	1667	1854	-	-	-	-	-	-	-
PAN 1653 R	5183	3089	2073	2519	3028	3178	-	-	-	-	-	-	-
Gem/Mean	5220	2957	2141	3127	2932	3242	4059	3043	2772	1951	4153	4495	3412

Tabel 21 Opbrengswaarskynlikheid (%) van kultivars geëvalueer in 2017/18, 2018/19 en 2019/20 vir die matige produksiegebiede by verskillende opbrengspotensiaal
Table 21 Yield probability (%) of cultivars in the 2017/18, 2018/19 and 2019/20 for the moderate production areas as different yield potentials

Kultivar	Opbrengspotensiaal/Yield potential (t/ha)							
Cultivar	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5
P48T48 R	24	25	26	27	29	31	33	36
DM 5351 RSF	19	24	29	36	43	52	59	66
DM 5953 RSF	55	51	46	42	37	33	28	26
SSS 5449 (tuc)	60	54	46	39	32	26	20	16
DM 5302 RSF	71	62	50	39	27	18	11	8
SSS 5052 (tuc)	83	78	71	63	54	45	36	29
NA 5509 R	71	69	66	63	59	56	51	48
LS 6851 R	9	14	21	31	43	57	69	79
PAN 1521 R	90	87	82	76	67	58	48	39
NS 5909 R	20	28	36	48	58	70	78	85
LS 6860 R	84	81	78	74	69	63	57	51
P61T38 R	30	38	47	58	68	77	83	88
LS 6161 R	63	58	52	45	39	32	27	23
NS 6448 R	43	49	56	63	70	76	81	84
P64T39 R	49	56	63	70	76	82	85	88
LS 6868 R	17	17	18	20	21	24	27	30
DM 6.8i RR	71	74	75	77	78	80	80	81

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

Kultivar Cultivar	2018/19							2019/20						
	Bergville	Cedara	Greytwon	Kroonstad	Potchefstroom B/I	Stoffberg	Gem/Mean	Bergville	Cedara	Greytown	Kroonstad	Leeudoringstad	Stoffberg	Gem/Mean
P48T48 R	3892	4848	4089	1744	-	923	3099	3718	3777	3645	2795	1057	1563	2759
DM 5351 RSF	3712	5818	4426	1751	3977	1524	3535	3274	4286	4183	2720	2669	1204	3056
DM 5953 RSF	3890	4644	3888	2155	3078	1545	3200	4682	3532	3635	3249	2710	1243	3175
SSS 5449 (tuc)	4188	4246	4246	2006	2900	1719	3217	4041	3173	3662	2535	2204	2132	2958
DM 5302 RSF	3611	4375	4300	1974	3107	1973	3223	4284	3132	3713	2312	1981	1593	2836
LDC 5.3	3872	4650	4736	1603	3219	1811	3315	5315	3856	3776	2692	2755	2198	3432
SSS 5052 (tuc)	4045	4568	4609	2605	2996	1878	3450	3422	3447	3121	2804	2642	2072	2918
NA 5509 R	4123	4896	5019	2380	3557	1993	3661	4318	3737	3683	3249	2590	1301	3146
LS 6851 R	4286	5374	4642	1833	3425	1589	3525	4344	3370	3978	2428	2359	1630	3018
PAN 1575 R	-	-	-	-	-	-	-	3775	4177	3242	2704	1853	1734	2914
PAN 1521 R	4060	4715	4637	2945	3181	1444	3497	3424	3147	3944	2836	2662	1744	2960
PAN 1555 R	-	-	-	-	-	-	-	4793	4235	3773	2800	2773	1761	3356
NS 5909 R	4179	5124	5343	1956	3249	1680	3588	4270	3747	3806	2647	2493	1650	3102
LDC 5.9	4102	5563	4725	2395	3562	2707	3842	4588	3709	3496	2707	3637	1138	3213
DM 5901 RSF	4122	4752	5006	2037	3781	2284	3664	4837	3801	4257	2779	3413	1856	3491
LS 6860 R	3011	4709	5026	2331	3111	1672	3310	3748	3898	3642	2757	3071	1795	3152
LS 6164 R	4043	3930	5234	2074	3405	1864	3425	3670	3452	3666	2577	2758	2577	3117
PAN 1663 R	-	-	-	-	-	-	-	4133	3025	3067	2545	1316	1512	2600
P61T38 R	4323	4801	5202	2450	3304	1427	3585	4001	4143	4078	2606	2617	1410	3143
LS 6161 R	3812	4546	5006	1950	3333	1767	3402	3557	3559	3957	2749	2395	1563	2963
SSS 6560 (tuc)	4667	4857	5632	2429	3493	1552	3772	4078	3342	3976	2611	2493	1360	2977
NS 6448 R	4213	5133	5329	2564	3775	1865	3813	4825	4692	3867	2573	3420	1662	3506
P64T39 R	4344	4555	4969	2142	3001	1938	3492	4347	3630	4071	3025	3143	1501	3286
PAN 1644 R	3778	5359	5080	2192	3517	1473	3566	4344	3998	3634	2910	3480	1524	3315
LS 6868 R	3223	4465	4592	1393	2552	1393	2936	3857	3347	3782	2222	2257	1874	2890
DM 6.8i RR	3110	4901	4972	2600	3276	2014	3479	4982	4417	4095	2755	3507	1522	3546
DM 6968 RSF	-	-	-	-	-	-	-	3184	4400	3812	3008	2250	2563	3203
P71T74 R	3902	5195	5206	2474	3435	2042	3709	3908	3564	4316	3176	2471	991	3071
LS 6248 R	3564	4672	4144	2020	3334	1270	3167	-	-	-	-	-	-	-
NS 5009 R	3659	4259	4129	954	2678	1392	2845	-	-	-	-	-	-	-
NS 5258 R	4216	4685	4481	1390	3233	1529	3256	-	-	-	-	-	-	-
PAN 1532 R	3957	4474	4794	2308	4224	1766	3587	-	-	-	-	-	-	-
Y605	-	-	-	-	-	1832	1832	-	-	-	-	-	-	-
Y 627	3738	4725	5422	2376	3494	2249	3667	-	-	-	-	-	-	-
DM 6663 RSF	2966	4678	5355	1816	3165	1913	3315	-	-	-	-	-	-	-
Y 657	4055	4968	5107	2252	3575	2475	3739	-	-	-	-	-	-	-
Gem/Mean	3892	4790	4818	2100	3331	1766	3397	4133	3736	3781	2742	2606	1667	3111

Tabel 23 Opbrengswaarskynlikheid (%) van kultivars geëvalueer in 2017/18, 2018/19 en 2019/20 vir die warm besproeiing produksiegebiede by verskillende opbrengspotensiaal
Table 23 Yield probability (%) of cultivars in the 2017/18, 2018/19 and 2019/20 for the warm irrigation production areas as different yield potentials

Kultivar	Opbrengspotensiaal/Yield potential (t/ha)						
Cultivar	2,0	2,5	3,0	3,5	4,0	4,5	5,0
DM 5351 RSF	19	24	31	40	52	62	70
DM 5953 RSF	83	75	63	47	31	20	12
SSS 5449 (tuc)	27	27	28	30	33	37	41
DM 5302 RSF	19	23	29	37	47	57	64
SSS 5052 (tuc)	20	27	36	49	63	74	81
NA 5509 R	71	68	64	59	52	46	41
LS 6851 R	32	32	32	33	34	36	38
PAN 1521 R	46	52	59	67	73	77	80
NS 5909 R	55	53	51	49	46	44	42
LS 6860 R	66	63	59	53	48	43	39
P 61T38 R	85	83	79	74	67	58	51
LS 6161 R	13	18	26	37	50	63	72
SSS 6560 (tuc)	43	47	52	58	63	67	70
NS 6448 R	91	88	83	74	62	48	37
P64T39 R	45	52	59	67	74	79	82
LS 6868 R	15	17	19	24	31	38	46
DM 6.8i RR	96	93	85	70	48	29	16

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	2018/19				2019/20			
	Brits K2	Groblersdal-Agricol	Marble Hall	Gem/Mean	Hoopstad	Marble Hall	Schweizer-Reneke	Gem/Mean
P48T48 R	-	-	-	-	2864	2673	1062	2199
DM 5351 RSF	3933	3900	3751	3861	2824	2797	2426	2682
DM 5953 RSF	3678	4492	4301	4157	3688	3012	2334	3012
SSS 5449 (tuc)	4366	2833	3091	3430	2417	2226	1595	2079
DM 5302 RSF	3570	3825	3090	3495	3257	3415	1779	2817
LDC 5.3	3916	3952	3599	3822	2596	2091	2153	2280
SSS 5052 (tuc)	4197	4386	3667	4083	2949	3012	2197	2719
NA 5509 R	3282	4683	3551	3838	3458	3113	1905	2825
LS 6851 R	3603	3770	3630	3667	3512	3012	2099	2875
PAN 1575 R	-	-	-	-	2816	3143	1341	2434
PAN 1521 R	3848	4592	3497	3979	3506	3222	2368	3032
PAN 1555 R	-	-	-	-	3190	2754	2147	2697
NS 5909 R	3797	3854	3815	3822	3785	3139	2601	3175
LDC 5.9	3828	4027	3846	3901	3482	3035	1846	2788
DM 5901 RSF	3374	4158	3350	3627	3497	3478	2542	3173
LS 6860 R	3385	4039	2240	3222	4160	3541	1937	3213
LS 6164 R	3207	4514	3531	3751	2625	3549	2146	2773
PAN 1663 R	-	-	-	-	3187	3232	1664	2694
P61T38 R	2523	4257	3583	3455	2697	3447	2183	2776
LS 6161 R	3263	4132	3447	3614	3069	3239	2242	2850
SSS 6560 (tuc)	3225	4382	3825	3811	2947	3578	1947	2824
NS 6448 R	4319	3910	2724	3651	3018	3446	2120	2861
P64T39 R	3482	4601	3890	3991	4202	2955	2912	3356
PAN 1644 R	3448	4233	3323	3668	3991	3429	2458	3292
LS 6868 R	4060	2786	2991	3279	2547	1725	1186	1819
DM 6.8i RR	3735	3855	3474	3688	3395	4496	2093	3328
DM 6968 RSF	3655	3454	4180	3763	3034	3733	2456	3074
P71T74 R	4652	4334	3648	4211	2954	5001	1851	3269
LS 6248 R	3578	3716	3212	3502	-	-	-	-
NS 5009 R	2980	4194	3083	3419	-	-	-	-
NS 5258 R	3763	4242	3360	3788	-	-	-	-
PAN 1532 R	3323	2919	3728	3323	-	-	-	-
Y 627	3740	4121	3652	3838	-	-	-	-
DM 6663 RSF	4111	4239	3506	3952	-	-	-	-
Y 657	3666	4229	3948	3948	-	-	-	-
PAN 1653 R	3704	4189	3702	3865	-	-	-	-
Gem/Mean	3663	4026	3507	3732	3202	3196	2057	2818

Tabel 25 Saamgevatte inligting van al die lokaliteite in die koel produksiegebiede, 2019/20
Table 25 Summerised information for all the localities in the cool production areas, 2019/20

Kultivar/Cultivar	Dae tot blom/ Days to flowe-ring	Fisiologies ryp/ Physological mature	Oes datum/ Harvest date	Planthoogte/ Plant height	Peulhoogte/ Pod height	Omval/ Lod-ging	Groenstam/ Green stem	Oopspring/ Shattering	Planttelling/ Number of plants	Persentasie ongewenste sade/Percentage undesirable seed	Massa 100 sade/ Mass 100 seeds	Opbrengs/ Yield
P48T48 R	56	114	154	53	4	1,11	1,72	1,17	178	0,04	18,43	3080
DM 5351 RSF	56	117	152	66	5	1,33	1,50	1,22	200	0,03	16,00	3830
DM 5953 RSF	58	115	154	67	7	1,17	1,00	1,00	218	0,21	15,78	4079
SSS 5449 (tuc)	67	129	167	78	9	1,28	1,22	1,11	223	0,19	13,68	3300
DM 5302 RSF	67	128	164	72	6	1,28	1,39	1,17	223	0,18	15,43	3321
LDC 5,3	69	131	173	76	8	1,22	1,50	1,00	197	0,29	14,55	3500
SSS 5052 (tuc)	71	133	174	82	11	1,28	1,56	1,06	217	0,22	13,97	3215
NA 5509 R	73	132	179	83	10	1,28	1,22	1,00	188	0,18	15,57	3440
LS 6851 R	67	132	172	62	7	1,00	1,00	1,06	222	0,37	13,84	3235
PAN 1575 R	70	130	150	80	8	1,17	1,50	1,06	143	0,16	16,01	3399
PAN 1521 R	72	126	167	90	11	1,50	1,33	1,00	221	0,17	15,94	3918
PAN 1555 R	74	137	176	82	12	1,33	1,28	1,06	194	0,10	16,87	3257
NS 5909 R	79	143	186	81	13	1,39	1,56	1,00	209	0,24	15,58	3605
LDC 5,9	71	135	184	88	9	1,50	1,39	1,00	197	0,04	17,23	3591
DM 5901 RSF	70	136	184	79	9	1,22	1,56	1,06	197	0,11	15,79	3520
LS 6860 R	77	144	188	91	13	1,39	1,61	1,00	196	0,30	17,43	3102
LS 6164 R	73	135	186	92	12	1,61	1,33	1,00	218	0,21	14,51	3220
PAN 1663 R	73	134	178	80	9	1,22	1,11	1,06	195	0,22	15,48	3419
P61T38 R	72	134	181	67	11	1,17	1,56	1,00	217	0,07	15,04	3279
LS 6161 R	73	135	176	89	13	1,33	1,50	1,11	231	0,13	14,93	3188
SSS 6560 (tuc)	73	134	184	87	11	1,56	1,39	1,00	217	0,13	14,61	3425
NS 6448 R	71	134	184	77	11	1,22	1,33	1,00	208	0,07	14,98	3070
P64T39 R	76	144	188	90	11	1,72	1,56	1,06	219	0,26	15,77	3691
PAN 1644 R	77	136	188	83	8	1,33	1,22	1,00	186	0,12	15,71	3339
LS 6868 R	77	142	188	83	11	1,28	1,78	1,00	187	0,37	13,74	2954
DM 6,8i RR	73	141	188	103	12	1,56	1,56	1,00	222	0,14	16,86	3689
DM 6968 RSF	77	146	188	88	15	1,67	2,06	1,00	161	0,11	18,12	3216
P71T74 R	78	146	188	94	14	1,56	2,00	1,06	223	0,24	16,00	3662
Gem/Mean	71	134	176	81	10	1,35	1,45	1,04	204	0,17	15,64	3412

Tabel 26 Saamgevatte inligting van al die lokaliteite in die matige produksiegebiede, 2019/20

Table 26 Summerised information for all the localities in the moderate production areas, 2019/20

Kultivar/Cultivar	Dae tot blom/ Days to flowe-ring	Fisiologies ryp/ Physological mature	Oes datum/ Harvest date	Planthoogte/ Plant height	Peulhoogte/ Pod height	Omval/ Lod-ging	Groenstam/ Green stem	Oopspring/ Shattering	Planttelling/ Number of plants	Persentasie ongewenste sade/Percentage undesirable seed	Massa 100 sade/ Mass 100 seeds	Opbrengs/ Yield
P48T48 R	44	114	129	54	5	1,00	1,27	1,00	162	0,10	19,39	2759
DM 5351 RSF	44	117	133	71	8	1,60	2,40	1,25	172	0,29	16,70	3056
DM 5953 RSF	43	114	129	69	7	1,00	1,07	1,25	196	0,08	16,48	3175
SSS 5449 (tuc)	51	121	134	73	8	1,00	1,60	1,50	186	0,18	14,31	2958
DM 5302 RSF	49	119	134	63	8	1,00	1,00	1,00	189	0,31	16,04	2836
LDC 5,3	52	126	140	71	8	1,07	1,80	1,00	177	0,24	15,30	3432
SSS 5052 (tuc)	60	127	145	81	12	1,27	1,27	1,00	183	0,16	15,06	2918
NA 5509 R	58	125	142	75	9	2,00	1,20	1,00	165	0,38	16,72	3146
LS 6851 R	52	126	146	55	8	1,07	1,93	1,00	174	0,34	14,26	3018
PAN 1575 R	55	125	140	74	9	1,00	2,00	1,25	159	0,38	16,85	2914
PAN 1521 R	63	125	140	80	12	1,00	1,80	1,25	194	0,32	16,21	2960
PAN 1555 R	62	127	141	83	14	1,00	1,40	1,00	166	0,25	25,24	3356
NS 5909 R	60	130	146	83	15	1,00	2,00	1,00	180	0,26	15,92	3102
LDC 5,9	61	130	145	83	10	1,60	1,80	1,00	149	0,30	17,70	3213
DM 5901 RSF	59	126	145	76	9	1,00	1,00	1,00	153	0,28	24,85	3491
LS 6860 R	65	130	150	87	13	1,93	1,47	1,25	149	0,51	17,23	3152
LS 6164 R	63	129	142	87	12	1,60	1,40	1,00	169	0,37	15,21	3117
PAN 1663 R	62	127	142	76	11	1,80	1,00	1,00	153	0,62	16,37	2600
P61T38 R	64	129	145	58	11	1,00	1,07	1,25	166	0,38	16,40	3143
LS 6161 R	61	129	143	81	12	1,60	1,40	1,00	176	0,40	16,00	2963
SSS 6560 (tuc)	60	128	143	84	13	1,47	1,80	1,00	195	0,21	15,16	2977
NS 6448 R	62	131	147	76	11	1,40	1,60	1,25	157	0,33	15,75	3506
P64T39 R	64	130	152	88	12	1,00	1,00	1,00	212	0,43	16,14	3286
PAN 1644 R	64	130	151	80	11	1,00	1,00	1,50	176	0,23	16,39	3315
LS 6868 R	62	132	157	73	11	1,80	1,20	1,00	159	0,37	15,49	2890
DM 6,8i RR	64	133	157	89	12	1,73	1,00	1,00	198	0,41	17,31	3546
DM 6968 RSF	65	134	157	82	13	1,80	1,67	1,00	129	0,50	18,77	3203
P71T74 R	65	136	154	81	10	1,00	1,40	1,50	174	0,43	16,04	3071
Gem	58	127	144	76	10	1,31	1,45	1,12	172	0,32	16,90	3111

Tabel 27 Saamgevatte inligting van al die lokaliteite in die warmer produksiegebiede, 2019/20
Table 27 Summerised information for all the localities in the warmer production areas, 2019/20

Kultivar/Cultivar	Dae tot blom/ Days to flowe-ring	Fisiologies ryp/ Physological mature	Oes datum/ Harvest date	Planthoogte/ Plant height	Peulhoogte/ Pod height	Omval/ Lod-ging	Groenstam/ Green stem	Oopspring/ Shattering	Planttelling/ Number of plants	Persentasie ongewenste sade/Percentage undesirable seed	Massa 100 sade/ Mass 100 seeds	Opbrengs/ Yield
P48T48 R	40	120	132	48	5	1,00	2,56	1,00	180	0,20	18,81	2199
DM 5351 RSF	37	120	131	61	5	1,00	1,89	1,00	172	0,17	17,07	2682
DM 5953 RSF	38	119	131	58	4	1,00	1,00	1,00	171	0,17	16,59	3012
SSS 5449 (tuc)	46	124	135	56	5	1,00	1,67	1,22	195	0,18	14,94	2079
DM 5302 RSF	50	120	131	60	5	1,00	1,00	1,00	192	0,31	17,63	2817
LDC 5,3	42	120	131	57	4	1,00	1,67	1,00	170	0,24	16,18	2280
SSS 5052 (tuc)	48	126	140	68	10	1,00	1,11	1,00	211	0,07	16,32	2719
NA 5509 R	51	126	140	74	9	1,00	1,33	1,00	190	0,12	17,91	2825
LS 6851 R	51	126	140	54	4	1,11	3,44	1,00	210	0,10	16,81	2875
PAN 1575 R	52	122	140	67	8	1,00	2,33	1,00	170	0,11	17,54	2434
PAN 1521 R	53	123	135	70	9	1,00	1,11	1,00	198	0,17	18,25	3032
PAN 1555 R	51	121	140	78	9	1,00	2,33	1,00	170	0,20	17,81	2697
NS 5909 R	52	127	146	77	9	1,00	2,67	1,00	208	0,40	16,77	3175
LDC 5,9	49	129	146	69	9	1,00	1,22	1,00	159	0,20	16,93	2788
DM 5901 RSF	51	128	147	71	9	1,00	1,44	1,00	193	0,14	17,49	3173
LS 6860 R	54	129	146	90	16	1,00	1,11	1,00	174	0,17	18,99	3213
LS 6164 R	51	128	146	73	7	1,00	2,22	1,00	216	0,24	16,35	2773
PAN 1663 R	51	129	146	77	10	1,00	1,00	1,00	151	0,21	16,94	2694
P61T38 R	53	126	140	46	6	1,00	2,22	1,00	193	0,33	17,44	2776
LS 6161 R	52	128	141	76	9	1,00	1,67	1,00	186	0,08	15,83	2850
SSS 6560 (tuc)	54	125	135	81	8	1,00	2,11	1,00	179	0,23	16,38	2824
NS 6448 R	54	130	146	72	7	1,00	1,00	1,00	181	0,15	18,04	2861
P64T39 R	54	129	146	83	8	1,00	1,00	1,00	196	0,10	17,67	3356
PAN 1644 R	54	135	146	67	5	1,00	1,89	1,00	166	0,05	17,67	3292
LS 6868 R	50	133	146	58	6	1,00	2,44	1,00	170	0,10	16,65	1819
DM 6,8i RR	55	134	152	96	11	1,00	2,33	1,00	204	0,23	17,79	3328
DM 6968 RSF	52	133	146	84	10	1,00	1,89	1,00	177	0,26	19,18	3074
P71T74 R	58	140	152	92	11	1,00	3,22	1,00	184	0,34	18,21	3269
Gem	50	127	141	70	8	1,00	1,82	1,01	184	0,19	17,29	2818