

## SOUTH AFRICAN

### REGIONAL SUNFLOWER QUALITY

PRODUCTION REGION	(12)				(13)				(14)			
	North-West Western Region				North-West Central Region (Sannieshof)				North-West Southern Region			
Silo/Intake stands (Type of storage)	Blaauwbank (Bins) Buhmannsdrif (Bins) Kameel (Bins) Mareetsane (Bins) Vryburg (Bins)				Biesiesvlei (Bins) Bossies (Bins) Gerdau (Bins) Oppaslaagte (Bins) Sannieshof (Bins)				Amalia (Bins) Barberspan (Bins) Delareyville (Bins) Excelsior (Bins) Geysdorp (Bins) Hallatshope (Bins) Migdol (Bins) Nooitgedacht (Bins) Taaibospan (Bins) Schweizer-Reneke (Bins)			
<b><u>Grading:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
1. Damage sunflower seed, %	0.04	0.00	0.14	0.07	0.26	0.00	2.18	0.62	0.04	0.00	1.11	0.22
2. Screenings, %	3.01	0.84	5.61	2.12	1.38	0.24	3.12	1.03	1.75	0.21	5.17	1.20
3. Sclerotinia, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Foreign Matter, %	1.39	0.68	3.24	1.24	1.14	0.32	2.25	0.54	0.83	0.18	1.76	0.42
5. Deviations in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items, %	4.40	1.52	8.85	3.25	2.52	0.67	4.58	1.21	2.58	0.39	5.91	1.44
Noxious seeds ( <i>Crotalaria sp.</i> , <i>Datura sp.</i> , <i>Ricinis communis</i> )	1	0	2	1.00	0	0	1	0.29	0	0	1	0.20
Noxious seeds ( <i>Argemone mexicana L.</i> , <i>Convolvulus sp.</i> , <i>Ipomoea purpurea Roth.</i> , <i>Lolium temulentum</i> , <i>Xanthium sp.</i> )	0	0	0	0	0	0	0	0	0	0	0	0
<b>Number of samples</b>	<b>4</b>				<b>22</b>				<b>25</b>			
<b><u>Chemical analysis:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
Moisture, % (5 hr, 105 °C)	4.4	3.6	5.4	0.80	5.1	4.4	5.7	0.46	4.9	3.4	6.1	0.69
Crude Protein, % (as is)	17.75	17.29	18.33	0.46	17.98	16.09	18.81	0.74	17.44	15.14	20.40	0.99
Crude Fat, % (as is)	39.1	37.9	39.7	0.82	38.2	35.9	41.0	1.74	39.9	38.3	43.2	1.01
Ash, % (as is)	2.30	2.09	2.44	0.15	2.81	2.12	3.17	0.31	2.43	2.19	2.88	0.13
Crude Fibre, % (as is)	20.1	19.5	20.8	0.70	19.9	16.5	21.6	1.17	20.4	17.3	23.0	1.08
<b>Number of samples</b>	<b>4</b>				<b>22</b>				<b>25</b>			

## SOUTH AFRICAN

### REGIONAL SUNFLOWER QUALITY

PRODUCTION REGION	(15)				(16)				(17)			
	North-West South-Eastern Region				North-West Central Eastern Region				North-West Central Northern Region (Ottosdal)			
Silo/Intake stands (Type of storage)	Bloemhof (Bins) Christiana (Bins) Hertzogville (Bins) Hoopstad (Bins) Kingswood (Bins) Kruising (Bunkers) Poppieland (Bunkers)				Bamboesspruit (Bins) Leeudoringstad (Bins) Makwassie (Bins) Regina (Bins) Strydpoort (Bins) Wolmaransstad (Bins)				Boschpoort (Bags/Bins/Bulk) Hartbeesfontein (Bins) Kleinharts (Bins) Melliadora (Bins) Ottosdal (Bins) Rostrataville (Bins) Vermaas (Bins) Werda (Bins)			
<b><u>Grading:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
1. Damage sunflower seed, %	0.05	0.00	0.10	0.07	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0.02
2. Screenings, %	1.35	0.84	1.85	0.71	1.21	0.48	1.63	0.63	2.11	1.00	4.00	0.88
3. Sclerotinia, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Foreign Matter, %	0.84	0.43	1.24	0.57	1.39	0.20	3.14	1.55	1.44	0.38	2.57	0.70
5. Deviations in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items, %	2.18	2.08	2.28	0.14	2.60	0.68	4.77	2.06	3.55	1.53	6.57	1.50
Noxious seeds ( <i>Crotalaria sp.</i> , <i>Datura sp.</i> , <i>Ricinis communis</i> )	0	0	0	0	0	0	0	0	0	0	1	0.28
Noxious seeds ( <i>Argemone mexicana L.</i> , <i>Convolvulus sp.</i> , <i>Ipomoea purpurea Roth.</i> , <i>Lolium temulentum</i> , <i>Xanthium sp.</i> )	0	0	0	0	0	0	0	0	0	0	0	0
<b>Number of samples</b>	<b>2</b>				<b>3</b>				<b>13</b>			
<b><u>Chemical analysis:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
Moisture, % (5 hr, 105 °C)	5.1	4.6	5.6	0.71	4.4	4.2	4.6	0.21	4.8	4.0	5.6	0.49
Crude Protein, % (as is)	18.33	18.08	18.57	0.35	17.29	16.47	17.84	0.72	17.80	16.72	18.94	0.77
Crude Fat, % (as is)	37.4	35.8	39.0	2.26	39.0	38.7	39.2	0.26	39.4	37.1	42.1	1.62
Ash, % (as is)	2.67	2.58	2.75	0.12	2.52	2.26	2.66	0.22	2.51	2.28	2.71	0.11
Crude Fibre, % (as is)	20.4	19.2	21.6	1.70	20.7	20.6	20.8	0.10	19.5	16.4	22.3	1.52
<b>Number of samples</b>	<b>2</b>				<b>3</b>				<b>13</b>			

## SOUTH AFRICAN

### REGIONAL SUNFLOWER QUALITY

PRODUCTION REGION	(18)				(19)				(20)			
	North-West Central Region (Ventersdorp)				North-West Central Region (Lichtenburg)				North-West Eastern Region			
Silo/Intake stands (Type of storage)	Bodenstein (Bins) Buckingham (Bins) Coligny (Bins) Enselspruit (Bins) Makokskraal (Bins) Potchefstroom (Bins) Ventersdorp (Bins)				Grootpan (Bins) Halfpad (Bins) Hibernia (Bins) Lottie Halte (Bins) Lusthof (Bins) Lichtenburg Silo 3 (Bins) Lichtenburg Silo 5 (Bins) Lichtenburg (Bunkers)				Battery (Bins) Brits (Bins) Boons (Bins) Derby (Bins) Koster (Bins) Swartruggens (Bins) Syferbult (Bins)			
<b><u>Grading:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
1. Damage sunflower seed, %	0.93	0.00	3.94	1.70	0.02	0.00	0.12	0.04	0.17	0.00	0.69	0.35
2. Screenings, %	1.35	0.49	1.99	0.68	3.46	1.45	7.22	1.91	2.45	0.62	4.31	1.68
3. Sclerotinia, %	0.05	0.00	0.23	0.10	0.00	0.00	0.00	0.00	0.11	0.00	0.44	0.22
4. Foreign Matter, %	1.25	0.49	1.65	0.46	1.73	1.05	3.06	0.67	0.93	0.52	1.52	0.49
5. Deviations in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items, %	2.65	1.47	3.40	0.84	5.19	2.50	10.28	2.47	3.49	1.15	5.47	1.85
Noxious seeds ( <i>Crotalaria sp.</i> , <i>Datura sp.</i> , <i>Ricinis communis</i> )	0	0	0	0	0	0	0	0	0	0	0	0
Noxious seeds ( <i>Argemone mexicana L.</i> , <i>Convolvulus sp.</i> , <i>Ipomoea purpurea Roth.</i> , <i>Lolium temulentum</i> , <i>Xanthium sp.</i> )	0	0	0	0	0	0	0	0	0	0	0	0
<b>Number of samples</b>	<b>5</b>				<b>8</b>				<b>4</b>			
<b><u>Chemical analysis:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
Moisture, % (5 hr, 105 °C)	4.6	4.1	5.2	0.49	4.6	3.7	5.1	0.50	4.5	4.1	4.7	0.26
Crude Protein, % (as is)	16.59	15.83	17.44	0.76	17.26	15.74	18.48	0.89	15.96	15.65	16.61	0.44
Crude Fat, % (as is)	39.3	38.1	41.4	1.45	39.5	34.6	42.5	2.63	40.6	38.9	43.2	1.98
Ash, % (as is)	2.37	2.26	2.49	0.08	2.50	2.33	2.63	0.11	2.27	2.11	2.49	0.18
Crude Fibre, % (as is)	20.6	19.2	21.4	0.88	19.6	16.0	23.2	2.56	20.1	18.0	21.4	1.49
<b>Number of samples</b>	<b>5</b>				<b>8</b>				<b>4</b>			

## SOUTH AFRICAN

### REGIONAL SUNFLOWER QUALITY

PRODUCTION REGION	(21)				(22)				(23)			
	Free State North-Western Region (Viljoenskroon)				Free State North-Western Region (Bothaville)				Free State North-Western Region (Bultfontein)			
Silo/Intake stands (Type of storage)	Attie (Bins) Groenebloem (Bins) Heuningspruit (Bins) Koppies (Bins) Rooiwal (Bins) Vierfontein (Bins) Viljoenskroon (Bins) Vredefort (Bins) Weiveld (Bins)				Allanridge (Bins) Bothaville (Bins) Mirage (Bins) Odendaalsrus (Bins) Schoonspruit (Bins) Schuttendraai (Bins) Misgunst (Bunkers)				Bultfontein (Bins) Losdoorns (Bins) Protespan (Bins) Tierfontein (Bins) Wesselsbron (Bins) Willemsrus (Bins)			
<b><u>Grading:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
1. Damage sunflower seed, %	0.52	0.00	2.47	0.85	0.22	0.00	0.71	0.30	0.42	0.21	0.62	0.21
2. Screenings, %	1.73	0.48	4.42	1.43	1.60	1.17	2.54	0.48	1.93	1.68	2.34	0.36
3. Sclerotinia, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Foreign Matter, %	1.48	0.39	3.79	1.22	1.04	0.31	2.87	0.92	1.65	0.51	3.70	1.78
5. Deviations in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items, %	3.22	1.05	6.69	2.04	2.64	1.70	4.04	0.89	3.58	2.19	6.04	2.14
Noxious seeds ( <i>Crotalaria sp.</i> , <i>Datura sp.</i> , <i>Ricinis communis</i> )	0	0	0	0	0	0	0	0	0	0	0	0
Noxious seeds ( <i>Argemone mexicana L.</i> , <i>Convolvulus sp.</i> , <i>Ipomoea purpurea Roth.</i> , <i>Lolium temulentum</i> , <i>Xanthium sp.</i> )	0	0	0	0	0	0	0	0	0	0	0	0
<b>Number of samples</b>	<b>9</b>				<b>6</b>				<b>3</b>			
<b><u>Chemical analysis:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
Moisture, % (5 hr, 105 °C)	4.7	4.0	5.2	0.41	4.4	4.1	4.8	0.27	4.4	3.9	4.7	0.46
Crude Protein, % (as is)	17.53	16.54	19.38	0.85	17.49	16.82	18.24	0.56	18.44	17.38	19.98	1.36
Crude Fat, % (as is)	38.7	35.7	42.4	2.03	39.4	38.4	41.4	1.15	38.9	37.2	40.6	1.70
Ash, % (as is)	2.59	2.46	2.74	0.10	2.52	2.32	2.73	0.17	2.63	2.38	2.97	0.30
Crude Fibre, % (as is)	20.4	16.2	24.5	2.43	20.0	18.7	20.9	0.90	19.4	19.0	19.8	0.40
<b>Number of samples</b>	<b>9</b>				<b>6</b>				<b>3</b>			

## SOUTH AFRICAN

### REGIONAL SUNFLOWER QUALITY

PRODUCTION REGION	(24) Free State Central Region				(25) Free State South-Western Region				(26) Free State South-Eastern Region						
	Silo/Intake stands (Type of storage)				Bloemfontein (Bins) Brandfort (Bins) De Brug (Bins) Geneva (Bins) Hennenman (Bins) Kroonstad (Bins) Petrusburg (Bins) Theunissen (Bins) Van Tonder (Bins) Welgeleë (Bins) Winburg (Bins)				Bethlehem (Bins) Clocolan (Bins) Ficksburg (Bins) Fouriesburg (Bins) Marseilles (Bins) Modderpoort (Bins) Slabberts (Bins) Tweespruit (Bins) Westminster (Bins)				Arlington (Bins) Kaallaagte (Bins) Libertas (Bins) Marquard (Bins) Meets (Bins) Monte Video (Bins) Senekal (Bins) Steynsrus (Bins)		
<b><u>Grading:</u></b>	<i>ave</i>	<i>min</i>	<i>max</i>	<i>stdev</i>	<i>ave</i>	<i>min</i>	<i>max</i>	<i>stdev</i>	<i>ave</i>	<i>min</i>	<i>max</i>	<i>stdev</i>			
1. Damage sunflower seed, %	0.24	0.00	0.49	0.25	2.50	0.00	21.88	7.27	0.06	0.00	0.54	0.13			
2. Screenings, %	0.95	0.63	1.50	0.48	1.50	0.41	4.04	1.12	3.43	0.31	11.36	3.42			
3. Sclerotinia, %	0.00	0.00	0.00	0.00	0.09	0.00	0.77	0.26	0.01	0.00	0.15	0.04			
4. Foreign Matter, %	0.94	0.46	1.73	0.69	1.46	0.44	5.63	1.64	0.95	0.27	2.24	0.48			
5. Deviations in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items, %	1.89	1.09	3.23	1.17	3.04	0.85	6.57	1.72	4.39	1.05	12.04	3.38			
Noxious seeds ( <i>Crotalaria sp.</i> , <i>Datura sp.</i> , <i>Ricinis communis</i> )	0	0	1	0.58	0	0	0	0	0	0	0	0			
Noxious seeds ( <i>Argemone mexicana L.</i> , <i>Convolvulus sp.</i> , <i>Ipomoea purpurea Roth.</i> , <i>Lolium temulentum</i> , <i>Xanthium sp.</i> )	0	0	0	0	0	0	0	0	0	0	0	0			
<b>Number of samples</b>	<b>3</b>				<b>9</b>				<b>29</b>						
<b><u>Chemical analysis:</u></b>	<i>ave</i>	<i>min</i>	<i>max</i>	<i>stdev</i>	<i>ave</i>	<i>min</i>	<i>max</i>	<i>stdev</i>	<i>ave</i>	<i>min</i>	<i>max</i>	<i>stdev</i>			
Moisture, % (5 hr, 105 °C)	4.7	4.2	5.0	0.46	4.0	2.6	4.5	0.59	4.7	3.7	6.2	0.73			
Crude Protein, % (as is)	17.02	16.73	17.34	0.31	14.66	13.41	16.57	0.89	15.68	14.40	18.60	1.04			
Crude Fat, % (as is)	38.6	36.9	41.0	2.14	42.1	40.3	43.3	1.00	41.0	34.0	44.0	2.80			
Ash, % (as is)	2.68	2.49	2.80	0.17	2.58	2.44	2.75	0.10	2.57	2.33	3.19	0.20			
Crude Fibre, % (as is)	20.2	19.3	20.9	0.82	19.7	17.7	21.7	1.33	20.0	17.1	21.7	1.21			
<b>Number of samples</b>	<b>3</b>				<b>9</b>				<b>29</b>						

## SOUTH AFRICAN

### REGIONAL SUNFLOWER QUALITY

PRODUCTION REGION	(27) Free State Northern Region				(28) Free State Eastern Region				(29) Mpumalanga Southern Region			
	Silo/Intake stands (Type of storage)											
	Gottenburg (Bins) Heilbron (Bins) Hoogte (Bins) Mooigeleë (Bins) Petrus Steyn (Bins) Wolwehoek (Bins)				Afrikaskop (Bins/Bunkers) Ascent (Bins) Cornelia (Bins) Daniëlsrus (Bins) Eeram (Bins) Frankfort (Bins) Harrismith (Bins) Jim Fouché (Bins) Kransfontein (Bins/Bunkers) Memel (Bins) Reitz (Bins) Tweeling (Bins) Villiers (Bins/Bulk) Vrede (Bins) Warden (Bins) Windfield (Bins)				Balfour (Bins) Greylingstad (Bins) Grootvlei (Bins) Harvard (Bins) Holmdene (Bins) Leeuspruit (Bins) Platrand (Bins) Standerton (Bins) Val (Bins)			
<b><u>Grading:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
1. Damage sunflower seed, %	0.53	0.40	0.74	0.15	0.03	0.00	0.14	0.06	0.00	0.00	0.00	0.00
2. Screenings, %	2.48	0.41	4.10	1.80	1.46	0.08	5.09	1.88	1.39	1.34	1.44	0.07
3. Sclerotinia, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Foreign Matter, %	1.62	1.00	1.97	0.43	0.85	0.12	1.86	0.58	1.21	0.73	1.68	0.67
5. Deviations in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items, %	4.10	2.38	5.72	1.57	2.30	0.44	6.05	2.08	2.60	2.17	3.02	0.60
Noxious seeds ( <i>Crotalaria</i> sp., <i>Datura</i> sp., <i>Ricinis communis</i> )	0	0	0	0	0	0	0	0	0	0	0	0
Noxious seeds ( <i>Argemone mexicana</i> L., <i>Convolvulus</i> sp., <i>Ipomoea purpurea</i> Roth., <i>Lolium temulentum</i> , <i>Xanthium</i> sp.)	0	0	0	0	0	0	0	0	0	0	0	0
<b>Number of samples</b>	<b>4</b>				<b>6</b>				<b>2</b>			
<b><u>Chemical analysis:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
Moisture, % (5 hr, 105 °C)	4.4	4.0	5.0	0.42	4.2	3.5	4.9	0.53	4.7	4.3	5.0	0.49
Crude Protein, % (as is)	16.18	15.22	16.90	0.78	17.04	16.22	17.98	0.76	16.86	16.13	17.59	1.03
Crude Fat, % (as is)	40.5	39.0	42.4	1.44	39.8	34.1	42.0	2.93	39.9	38.2	41.6	2.40
Ash, % (as is)	2.54	2.37	2.67	0.14	2.67	2.42	2.79	0.13	2.31	2.07	2.55	0.34
Crude Fibre, % (as is)	19.7	18.8	21.0	1.05	19.4	17.1	20.7	1.28	20.1	19.6	20.5	0.64
<b>Number of samples</b>	<b>4</b>				<b>6</b>				<b>2</b>			

## SOUTH AFRICAN

### REGIONAL SUNFLOWER QUALITY

PRODUCTION REGION	(31)				(32)				(33)			
	Mpumalanga Central Region				Mpumalanga Western Region				Mpumalanga Northern Region			
Silo/Intake stands (Type of storage)	Bakenlaagte (Bunkers) Brakfontein (Bunkers) Bethal (Bins) Devon (Bins) Kinross (Bins/Bunkers) Klipfontein (Bunkers) Leslie (Bins) Palmietfontein (Bunkers) Trichardt (Bins) Vaalkrantz (Bunkers)				Argent (Bins/Bunkers) Dryden (Bins) Endicott (Bins) Eloff (Bins) Hawerklip (Bins) Kendal (Bins) Ogies (Bins)				Arnot (Bins) Driefontein (Bins) Lydenburg (Bins) Marble Hall (Bins) Middelburg (Bins) Pan (Bins) Stoffberg (Bins) Wonderfontein (Bins)			
<b><u>Grading:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
1. Damage sunflower seed, %	0.34	-	-	-	0.20	0.00	0.59	0.34	0.00	0.00	0.00	0.00
2. Screenings, %	1.83	-	-	-	2.84	2.45	3.58	0.64	0.12	0.11	0.13	0.01
3. Sclerotinia, %	0.00	-	-	-	0.05	0.00	0.16	0.09	0.00	0.00	0.00	0.00
4. Foreign Matter, %	0.45	-	-	-	1.24	1.13	1.45	0.18	1.91	0.97	2.84	1.32
5. Deviations in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items, %	2.28	-	-	-	4.14	3.76	4.71	0.50	2.03	1.08	2.97	1.34
Noxious seeds ( <i>Crotalaria sp.</i> , <i>Datura sp.</i> , <i>Ricinis communis</i> )	1	-	-	-	0	0	0	0	0	0	0	0
Noxious seeds ( <i>Argemone mexicana L.</i> , <i>Convolvulus sp.</i> , <i>Ipomoea purpurea Roth.</i> , <i>Lolium temulentum</i> , <i>Xanthium sp.</i> )	0	-	-	-	0	0	0	0	0	0	0	0
<b>Number of samples</b>	<b>1</b>				<b>3</b>				<b>2</b>			
<b><u>Chemical analysis:</u></b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>	<b>ave</b>	<b>min</b>	<b>max</b>	<b>stdev</b>
Moisture, % (5 hr, 105 °C)	5.2	-	-	-	4.4	4.0	4.9	0.46	5.1	4.7	5.4	0.49
Crude Protein, % (as is)	17.37	-	-	-	17.65	16.81	18.61	0.91	13.85	13.35	14.35	0.71
Crude Fat, % (as is)	40.6	-	-	-	38.1	37.0	39.8	1.51	39.8	39.3	40.2	0.64
Ash, % (as is)	2.41	-	-	-	2.60	2.50	2.69	0.10	2.37	2.22	2.52	0.21
Crude Fibre, % (as is)	19.1	-	-	-	20.6	20.1	21.5	0.76	22.2	21.9	22.5	0.42
<b>Number of samples</b>	<b>1</b>				<b>3</b>				<b>2</b>			

## SOUTH AFRICAN

### REGIONAL SUNFLOWER QUALITY

PRODUCTION REGION	(34) Gauteng				(35) Limpopo			
Silo/Intake stands (Type of storage)	Bloekomspruit (Bins) Bronkhorstspuit (Bins) Glenroy (Bins) Goeie Hoek (Bins) Kaalfontein (Bins) Kliprivier (Bunkers) Meyerton (Bunkers) Middelvlei (Bins) Nigel (Bins) Oberholzer (Bins) Pretoria Wes (Bins) Raathsvlei (Bins) Vogelvallei (Bunkers)				Alma (Bins) Lehau (Bins) Naboomspruit (Mookgophong) (Bins) Northam (Bins) Nutfield (Bins) Nylstroom (Modimolle) (Bins) Potgietersrus (Mokopane) (Bins) Roedtan (Bins) Settlers (Bins) Warmbad (Bela-Bela) (Bins)			
<b><u>Grading:</u></b>	<b><i>ave</i></b>	<b><i>min</i></b>	<b><i>max</i></b>	<b><i>stdev</i></b>	<b><i>ave</i></b>	<b><i>min</i></b>	<b><i>max</i></b>	<b><i>stdev</i></b>
1. Damage sunflower seed, %	0.01	0.00	0.04	0.02	0.06	0.00	0.30	0.11
2. Screenings, %	1.44	0.37	2.91	0.92	1.28	0.40	2.46	0.78
3. Sclerotinia, %	1.01	0.00	3.03	1.43	0.00	0.00	0.00	0.00
4. Foreign Matter, %	2.18	0.49	4.52	1.71	0.71	0.36	1.16	0.28
5. Deviations in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items, %	4.64	1.61	7.43	2.18	1.99	0.88	3.10	0.81
Noxious seeds ( <i>Crotalaria sp.</i> , <i>Datura sp.</i> , <i>Ricinis communis</i> )	0	0	0	0	0	0	1	0.35
Noxious seeds ( <i>Argemone mexicana L.</i> , <i>Convolvulus sp.</i> , <i>Ipomoea purpurea Roth.</i> , <i>Lolium temulentum</i> , <i>Xanthium sp.</i> )	0	0	0	0	0	0	0	0
<b>Number of samples</b>	<b>5</b>				<b>8</b>			
<b><u>Chemical analysis:</u></b>	<b><i>ave</i></b>	<b><i>min</i></b>	<b><i>max</i></b>	<b><i>stdev</i></b>	<b><i>ave</i></b>	<b><i>min</i></b>	<b><i>max</i></b>	<b><i>stdev</i></b>
Moisture, % (5 hr, 105 °C)	4.6	4.2	5.4	0.47	4.8	4.1	5.8	0.57
Crude Protein, % (as is)	16.55	14.84	17.92	1.13	17.44	16.42	18.84	1.07
Crude Fat, % (as is)	41.4	40.1	42.1	0.85	38.8	35.8	40.5	1.53
Ash, % (as is)	2.45	2.35	2.60	0.11	2.56	2.40	2.95	0.20
Crude Fibre, % (as is)	19.1	18.6	19.7	0.49	19.3	17.6	20.9	1.02
<b>Number of samples</b>	<b>5</b>				<b>8</b>			