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WINGERDVERBETERINGSVERENIGING
VINE IMPROVEMENT ASSOCIATION

ANNUAL REPORT 2021



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WINGERDVERBETERINGSVERENIGING
VINE IMPROVEMENT ASSOCIATION

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SUID-AFRIKAANSE PLANTSERTIFISERINGSKEMA VIR VITIS
SOUTH AFRICAN PLANT CERTIFICATION SCHEME FOR VITIS

1. MEMBERS OF THE VIA

1.1 Producer organisations

The following producer organisations were registered members of the VIA during 2021:

Vinpro (wine grape producers)
SATI (table grape producers)
Raisins SA (drying grape producers)

1.2 Plant Improvement Organisations

The following Plant Improvement Organisations were members of the VIA in 2021:

Bosman Adama
SAPO Trust
Stargrow
Techno-Grow (resigned on 18.02.2021)
TopFruit
Vititec
Voor-Groenberg.

1.3 Nurseries

There were 52 nurseries registered to produce vines in 2021, 24 of these were registered by four of the six Plant Improvement Organisations as foundation nurseries. Three of the registered nurseries did not submit a return. The SA Vine Growers Association (SAVGA) represented the nurserymen on the VIA Board and Technical Committee.

The list of registered nurseries (in alphabetical order) is as follows:

CERT VIA REGISTERED NURSERIES 2021-2022

10296	Babilons Kwekery
10230	Bacchus Kwekery
10229	Bosman Adama Kwekery
12012	Bosman Herculesfontein Kwekery
10224	Cordiersrus Kwekery
10566	Cornerstone Nursery
10779	Duikerfontein Kwekery
10203	Elnie Kwekery
10611	Fleury Kwekery
10356	Groenendal Kwekery
10226	Hexberg Kwekery
10391	Koplande Boerdery
10204	Leeuwrivier Kwekery
10232	Mischa Premier Vines
10277	NR Ennis Boerdery
10396	Olifantskop Kwekery
11703	Oranjerivier Wingerd Kwekery
10205	Patatskloof Familietrust
10615	Rooiheuvel Kwekery
10780	Solitaire Boerdery
10801	Stargrow Marthinusrust
10440	Vergesig
11752	Vitigraft BK
11579	Vititec Bokloof
11578	Vititec Kys
11746	Vititec Picardi
10394	Wamakersvallei Kwekery
10223	Welvanpas Kwekery
	Bosman GV Kwekerye
	SAPO GV Kwekerye
	Vititec GV Kwekerye
	Voor-Groenberg GV Kwekery

2. COMPOSITION OF THE BOARD, THE EXECUTIVE COMMITTEE AND THE TECHNICAL COMMITTEE

2.1 VIA BOARD MEMBERS

Mr Theo Heydenrych served as chairman of the VIA Board. The following members represent their respective organisations:

Producers

Mr.	S Jordaan	Raisins SA
Mr.	D Moelich	SATI
Mr.	H Botha	Vinpro NPC
Mr.	JF Viljoen	Vinpro NPC

PIO's

Mr.	JC Bosman	Bosman Adama
Ms.	R Carstens	SAPO Trust
Mr.	MH Prins	Stargrow
Mr.	S Amos	TopFruit
Mr.	A Van Wyk	Vititec
Mr.	J Wiese	Voor-Groenberg

Nurseries

Mr.	W Laubscher	SAVGA
Mr.	HJT Heydenrych	SAVGA

Co-opted members

Mr.	NL Africander	Department of Agriculture, Land Reform and Rural Development (DALRRD)
Ms.	J Sadie	DALRRD (retired 31.07.2021)
Mr.	JH Booysen	Chairman – Technical Committee
Prof.	F Halleen	Agricultural Research Council - Nietvoorbij

Secretary

Ms.	RM Kriel	Plant SA
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2.2 EXECUTIVE COMMITTEE

Mr. HJT Heydenrych (Chairman)
Mr. W Laubscher
Mr. MH Prins

2.3 TECHNICAL COMMITTEE

Mr.	JH Booysen	Independent (Chairman)
Mr.	AJ Jansen Van Vuuren	TopFruit
Ms.	MC Louw	Bosman Adama
Mr.	T Oosthuizen	Vititec
Mr.	MH Prins	Stargrow
Mr.	A Teubes	Voor-Groenberg (Until 01.11.2021)
Mr.	J Laubscher	Voor-Groenberg (From 01.11.2021)
Mr.	D Venter	SAPO Trust (Until 01.07.2021)
Ms.	S Malan	SAPO Trust (From 01.07.2021)
Mr.	T Heydenrych (Jr)	SAWKV
Mr.	JH Malan	SAWKV
Mr.	J Ferreira	SATI (Until 01.05.2021)
Mr.	D Moelich	SATI (From 01.05.2021)
Mr.	S Jordaan	Raisins SA
Mr.	C Schutte	Vinpro
Mr.	HP Gerber	BG Plantinspeksie Konsultante

Co-opted

Ms.	I du Toit	Inspection Services - DALRRD
Ms.	L Frazenburg	Plant Health - DALRRD
Ms.	P Burger	Agricultural Research Council
Prof.	G Pietersen	Patho Solutions
Ms.	R Kriel	Secretary

3. DIRECTORS OF PLANT SA

The following VIA members served as Directors of Plant SA in 2021:

Mr. HJT Heydenrych (Vice Chairman), Mr. JC Bosman, Mr. JF Viljoen and Mr. A Van Wyk served as alternate director.

4. FINANCIAL STATEMENT AS ON 31 DECEMBER 2021

According to the preliminary audited Income and Expenditure Statement for the financial year 1 January 2021 to 31 December 2021, as compiled by BGR de Villiers, the financial year ended with a deficit of R 10 329.

As a result of this shortfall, the accumulated funds of the VIA decreased from R 648 266 on 1 January 2021 to R 637 937 on 31 December 2021.

5. SUMMARY OF THE ACTIVITIES OF 2021

- On 18 February 2021, Techno-Grow announced that the PIO was giving up its membership of the VIA. The company was registered as a PIO on 24 May 2000 and during the 21 years as a member of the VIA issued a total of just under 40 million certified rootstocks.
- The amended Scheme (to provide for the inclusion of table and drying grapes under the VIA) was published in the Government Gazette on 19 March 2021. The Scheme is now officially called the **South African Plant Certification Scheme for *Vitis***.
- The Registrar of Plant Improvement, Ms Joan Sadie, retired at the end of July 2021. Me. Sadie's retirement also left her position as Board member of the VIA vacant, as a new Registrar has not yet been appointed.
- A Plant Inspector course was presented in September 2021 which was attended by 14 people. 13 Candidates passed the examination and the other one successfully passed the oral supplementary examination after extra input.

- The standard operating procedures for block units (VIA C-1-3) have been updated and adapted to provide, among other things, for the compulsory testing of all foundation units for Leafroll. The forms for site inspections and applications to register new block units (VIA C-3-6 and VIA C-3-7) have also been adapted to be more user-friendly.

6. GRAFTED VINES AVAILABLE FROM NURSERIES

The figures for vines available from registered nurseries for 2021 is compared in **Table 1** with the corresponding figures for 2020.

Table 1 Corresponding figures for vines lifted in 2021 compared to 2020

	2020	2021
WINE GRAPES		
Number of nurseries	34	37
Vines lifted	12 771 031	9 533 603
Grafting efficacy (%)	43%	45,2%
% Certified & Candidate	96,8%	97%
TABLE GRAPES		
Number of nurseries	34	34
Vines lifted	3 528 341	5 457 185
Grafting efficacy (%)	42%	39%
% Certified & Candidate	32%	46%
DRYING GRAPES		
Number of nurseries	29	28
Vines lifted	2 884 629	2 834 637
Grafting efficacy (%)	36%	38%
% Certified & Candidate	93%	96%
TOTAL		
Number of nurseries	40	42
Vines lifted	19 184 001	17 825 425
Grafting efficacy (%)	41,5%	42%
% Certified & Candidate	84,2%	81,2%

7. STATE OF CLONES

There were 23 clones upgraded to register status and 38 candidate clones were added to the clone register.

The requested scrapping of clones included three registered clones and two candidate clones.

Clones listed in the clone register on 31 December 2021 is summarized in **Table 2**.

TABLE 2 Number of varieties and clones listed by status

		CANDIDATE	REGISTERED	TOTAL	OFFICIAL VARIETIES
WINE GRAPES	VARIETIES	146	85	171	143
	CLONES	423	476	899	
TABLE GRAPES	VARIETIES	115	50	142	202
	CLONES	172	66	238	
DRYING GRAPES	VARIETIES	9	8	13	12
	CLONES	30	18	48	
ROOTSTOCKS	VARIETIES	37	16	44	48
	CLONES	74	102	176	

- In the past year, an average of 30% of the clones on the register were utilized, while an average of 43% of the varieties on the register were utilized. (This utilization refers to plant material issued to growers.)
 - 34 new varieties have been added to the official national variety list and notice has been issued for the withdrawal of four varieties from the list.
 - There are 154 grapevine varieties with Plant Breeders' Rights, of which two are rootstock varieties.
- *For the purposes of this report, all varieties that can be used as drying grapes according to the official variety list have been fully included in the drying grape component.*

8. STATE OF THE BLOCK UNITS

8.1 Rootstocks

The changes to the rootstock block register for 2021 include, the addition of 26 rootstock units while 31 units have been removed.

The state of the rootstock block units as recorded on 31 December 2021, are summarized in **Table 3**. The rootstock block units without status includes experimental varieties as well as units where the fan leaf test results are still outstanding.

TABLE 3 Number of rootstock varieties and clones by certification category and unit type

	STATUS		VARIETIES	CLONES	PREMISES	UNITS	VINES
FOUNDATION	CERTIFIED	W1	13	26	20	119	529 849
		W2	2	2	4	8	21 258
	CANDIDATE	K1	16	17	5	27	17 464
		K2	3	3	2	3	9 040
	NONE		7	8	7	12	30 768
	TOTAL		24	41	23	169	608 379
MOTHER UNITS	CERTIFIED	W1	9	21	42	226	921 471
	CANDIDATE	K1	2	2	2	3	6 406
		K2	1	1	1	1	5 040
	NONE		7	9	10	17	85 037
	TOTAL		9	22	48	247	1 017 954
GRAND TOTAL			24	42	64	416	1 626 333

8.2 Scions

The changes to the scion block register for 2021 include the addition of 284 scion units while 449 units have been removed.

The total number of wine grape vines on the register decreased by 628 130 vines, while the number of table and drying grape vines more or less halved (519 774 less).

In **Table 4** the number of scion vines (wine, table, and drying grapes) planted in foundation- and mother block units, as on 31 December 2021, are summarized according to the certification status.

TABLE 4 Number of scion varieties and clones according to unit type and status

		STATUS		VARIETIES	CLONES	PREMISES	UNITS	VINES	
WINE GRAPES	FOUNDATION	CERTIFIED	W1	35	113	35	338	1 039 813	
			W2	84	413	25	1 844	226 308	
		CANDIDATE	K1	10	11	4	11	1 277	
			K2	85	144	9	286	5 337	
		NONE		36	65	13	77	46 017	
	TOTAL		145	602	48	2 556	1 318 752		
	MOTHER UNITS	CERTIFIED	W1	46	158	85	462	2 149 673	
			W2	6	8	9	18	36 643	
		CANDIDATE	K1	3	3	3	4	3 886	
			K2	1	1	2	2	2 021	
		NONE		42	84	28	118	251 838	
	TOTAL		56	195	101	604	2 444 061		
		GRAND TOTAL		146	612	137	3 160	3 762 813	
	TABLE GRAPES	FOUNDATION	CERTIFIED	W1	4	7	2	7	1 847
				W2	40	53	14	93	27 594
CANDIDATE			K1	16	16	7	27	2 191	
			K2	85	100	12	168	9 077	
NONE				56	66	12	79	13 304	
TOTAL			138	183	22	374	54 013		
MOTHER UNITS		CERTIFIED	W1	11	13	19	30	96 782	
			W2	4	5	5	6	11 776	
		CANDIDATE	K1	3	3	4	5	3 238	
			K2	1	1	1	6	9 792	
		NONE		9	11	15	18	50 158	
TOTAL			20	24	35	65	171 746		
SOURCE		CANDIDATE	K1	3	3	2	3	5 033	
			K2	2	2	5	5	28 188	
		NONE		4	4	6	8	41 127	
		TOTAL		8	8	11	16	74 384	
		GRAND TOTAL		141	187	60	455	300 107	
DRYING GRAPES		FOUNDATION	CERTIFIED	W1	3	3	3	4	18 039
	W2			8	16	12	56	47 941	
	CANDIDATE		K2	7	12	7	34	3 258	
	NONE			6	9	9	13	17 488	
	TOTAL			10	29	18	107	86 726	
	MOTHER UNITS	CERTIFIED	W1	7	12	21	45	145 550	
			W2	4	5	8	10	28 084	
		CANDIDATE	K1	1	1	1	1	1	
			K2	2	2	1	2	709	
		NONE		5	7	11	14	73 629	
	TOTAL		9	15	35	72	247 973		
	GRAND TOTAL		11	31	47	179	334 699		

9. PLANT MATERIAL ISSUED TO NURSERIES

9.1 Rootstocks

There were 40.4 M, rootstocks issued in 2021 (42.7 M in 2020), of which 98.5% were certified. There were 39.2 M rootstocks grafted of which 96.3% were certified (42.2 M in 2020).

A total of 1.47 M uncertified rootstocks were utilized, of which 279 166 were grafted with certified scion material. Thus 0,7% of grafted vines do not have status due to the use of uncertified rootstocks.

The grafted rootstocks (**Table 5**) came from 13 different varieties (in 2020 there were 14) and 31 different clones (same as in 2020).

TABLE 5 Rootstocks grafted in 2021

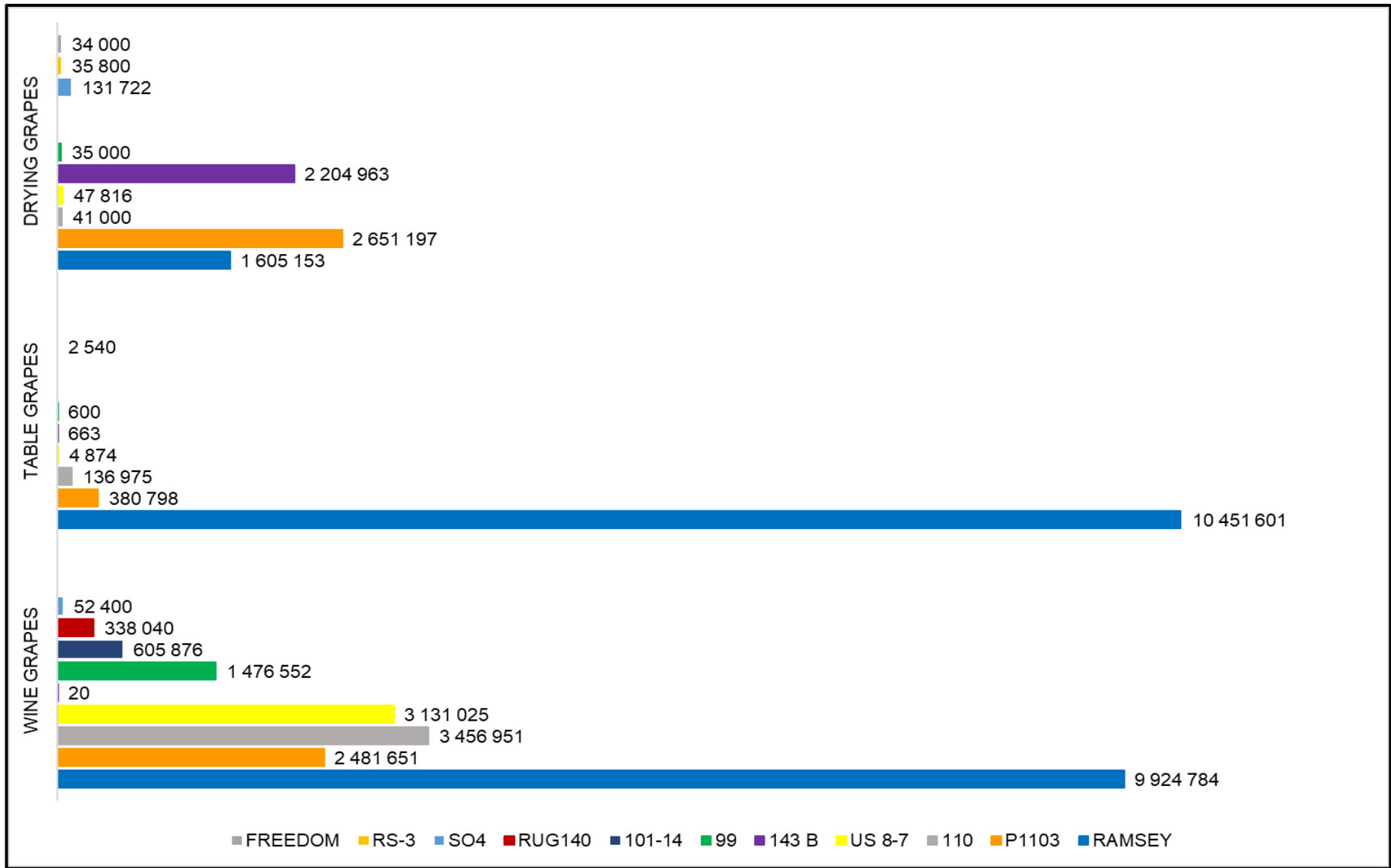
VARIETY	NUMBER OF CLONES	NUMBER OF SHOOTS
RAMSEY	5	21 981 538
PAULSEN 1103	3	5 513 646
RICHTER 110	3	3 634 926
US 8-7	3	3 183 715
143 B MGT	2	2 205 646
RICHTER 99	3	1 512 152
101-14 MGT	2	605 876
RUGGERI 140	3	338 040
SO 4	3	186 662
OTHER (4 VAR)	4	77 520

Of the 31 rootstock clones utilized, 10 clones made up 86% of the total utilization. The utilization of the top 10 clones is indicated in **Table 6**.

TABLE 6 Top 10 rootstock clones grafted in 2021 compared to 2020

VARIETY	CLONE	2020	2021
RAMSEY	SC 18 AE	10 387 607	8 996 928
RAMSEY	SC 18 AB	11 100 291	8 582 207
P1103	PS 28 I	3 797 574	3 574 615
US 8-7	UC 274 A	2 413 370	2 383 450
R 110	RQ 28 C	2 257 685	2 351 656
RAMSEY	SC 18 AH	1 220 539	1 904 097
P1103	PS 28 G	1 945 827	1 899 418
143 B	BA 31 C	1 302 413	1 455 544
RAMSEY	SC 19 E	1 742 479	1 345 343
R 110	RQ 244 D	774 545	1 242 170

Graph 1 shows the utilization of the different rootstock varieties for wine grapes, table grapes and drying grapes, respectively.



GRAPH 1 Rootstocks grafted in 2021

9.2 Wine grapes grafted in 2021

- 21 469 319 vines grafted vs. 20 999 693 in 2020
- 54 white varieties (9 394 499 vines)
- 51 red varieties (12 074 820 vines)
- 324 clones
- 96.8% of grafted vines are certified/candidate
- 18.5% of grafted vines are from units tested for leafroll (13.9% in 2020)

Table 7 lists the 20 wine grape clones of which the most material was grafted in 2021 compared to the same clones grafted in 2020.

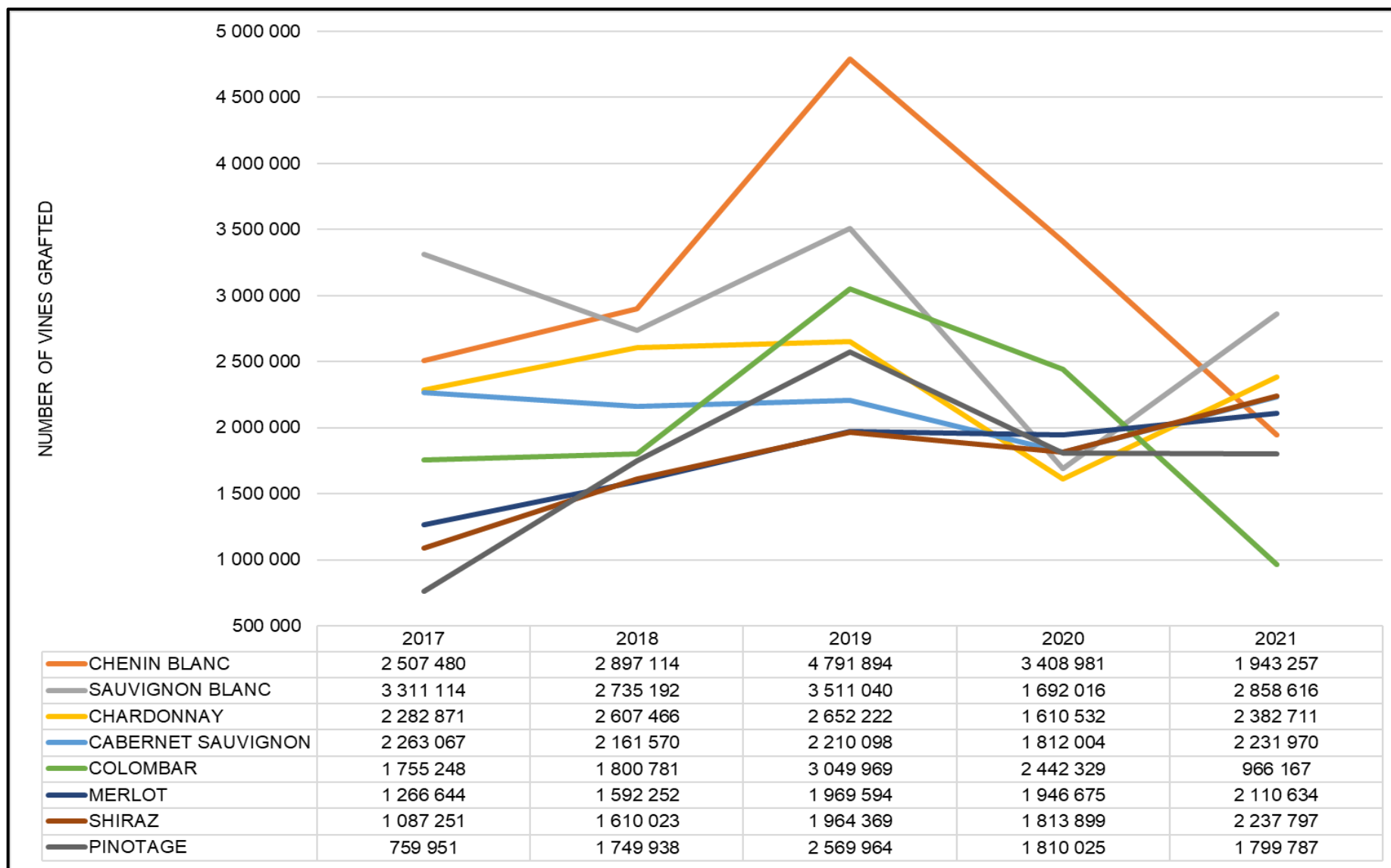
TABLE 7 The top 20 wine grape clones, grafted in 2021 compared to 2020

VARIETY	CLONE	2020	2021
MERLOT	MO 348 A	1 455 800	1 692 297
CHARDONNAY	CY 55 R	659 788	1 125 389
COLOMBAR	CO 1098 Q	1 603 572	849 623
SAUVIGNON BLANC	SB 316 G	404 599	813 225
SHIRAZ	SH 9 C	648 486	797 675
RUBY CABERNET	RC 1 A	455 283	694 884
PINOTAGE	PI 48 A	738 918	689 613
CABERNET SAUVIGNON	CS 15 M	221 153	672 571
CHENIN BLANC	SN 220 B	712 757	574 847
SAUVIGNON BLANC	SB 242 B	400 276	538 963
PINOTAGE	PI 48 H	362 506	506 847
CHENIN BLANC	SN 220 C	1 533 001	501 191
CHARDONNAY	CY 95 B	371 028	493 427
DURIF	DF 1 A	707 310	481 530
SHIRAZ	SH 198 I	443 154	480 985
SAUVIGNON BLANC	SB 11 R	310 016	419 168
MALBEC	MC 71 B	253 350	365 807
PINOTAGE	PI 48 C	278 201	314 245
SHIRAZ	SH 22 F	190 673	310 352
MERLOT	MO 192	128 484	297 525

The eight largest wine grape varieties grafted in 2021 are as follows:

- 1) Sauvignon blanc (21 clones) – 2 858 616 vines
- 2) Chardonnay (33 clones) – 2 382 711 vines
- 3) Shiraz (16 clones) – 2 237 797 vines
- 4) Cabernet sauvignon (23 clones) – 2 231 970 vines
- 5) Merlot (13 clones) – 2 110 634 vines
- 6) Chenin blanc (19 clones) – 1 943 257 vines
- 7) Pinotage (11 clones) – 1 799 787 vines
- 8) Colombar (6 clones) – 966 167 vines

Graph 2 shows the number of wine grape vines grafted over the last five years, of the eight most used varieties in 2021. The order in which the varieties appear refers to the total number of vines made over the five-year period.



GRAPH 2 Top 8 wine grape varieties grafted in 2021

9.2 Table grape vines grafted in 2021

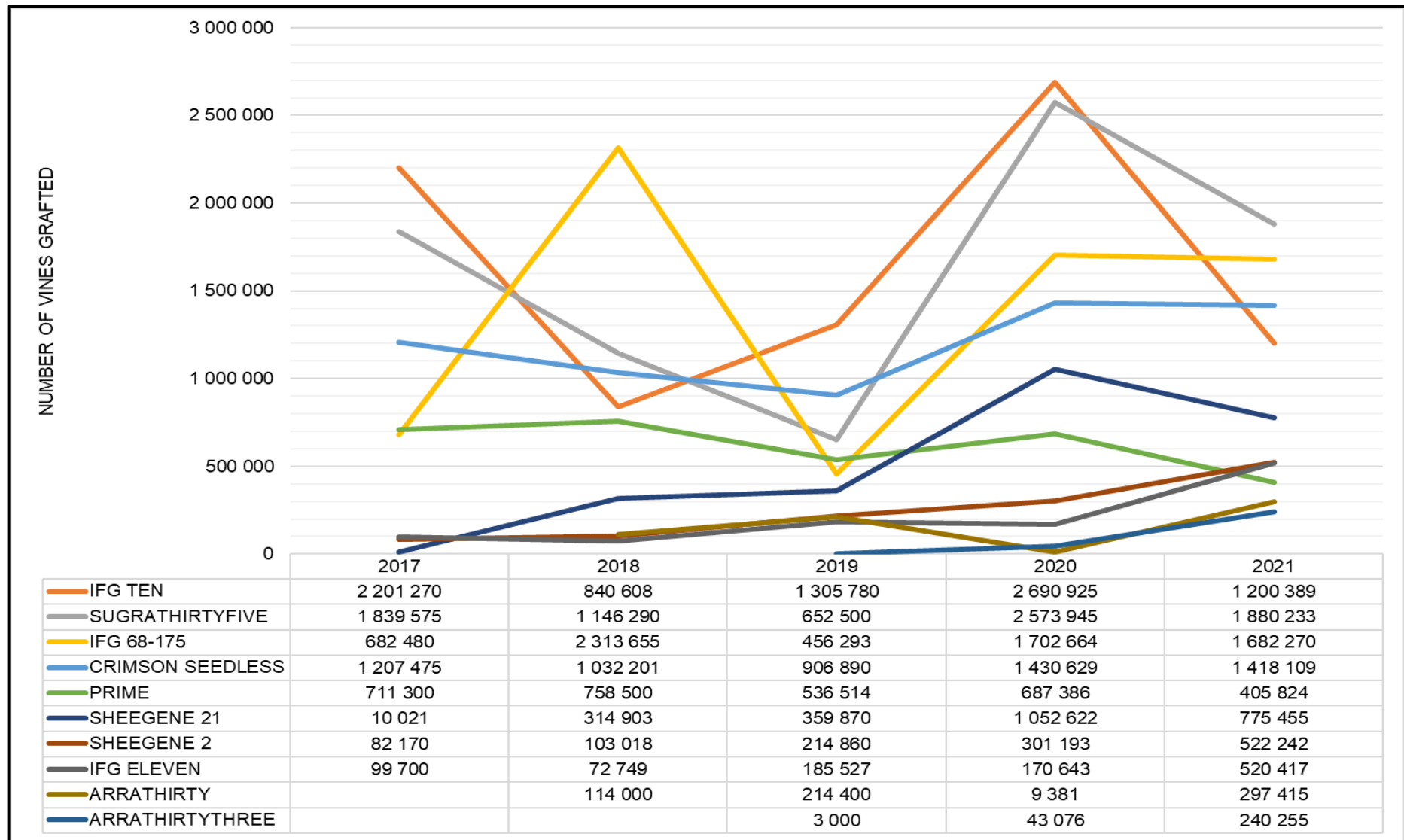
- 11 002 751 grafted compared to 13 678 568 in 2020
- 107 varieties (55 clones)
- 52 official varieties (19 with registered clones / 24 with candidate clones)
- 55 experimental varieties (12 with candidate clones)
- 45.6% of grafted vines are certified/candidate compared to 48.1% in 2020
- 55.7% of grafted vines are from units tested for leafroll (22.2% in 2020)

Table 8 lists the 20 largest table grape varieties grafted as well as the % certified material issued thereof.

TABLE 8 Top 20 table grape varieties grafted in 2021 compared to 2020

VARIETY	2020	% CERTIFIED	2021	% CERTIFIED
SUGRATHIRTYFIVE	2 573 945	99%	1 880 233	95%
IFG 68-175	1 702 664	47%	1 682 270	33%
CRIMSON SEEDLESS	1 430 629	93%	1 418 109	77%
IFG TEN	2 690 925	32%	1 200 389	52%
SHEEGENE 21	1 052 622	6%	775 455	17%
SHEEGENE 2	301 193	11%	522 242	2%
IFG ELEVEN	170 643	46%	520 417	39%
PRIME	687 386	0%	405 824	0%
ARRATHIRTY	9 381	63%	297 415	0%
ARRATHIRTYTHREE	43 076	0%	240 255	1%
ARRATWENTYNINE	916 689	3%	231 253	4%
REDGLOBE	74 701	100%	227 073	85%
FLAME SEEDLESS	170 149	100%	221 902	99%
SUGRANINETEEN	16 300	39%	154 516	59%
IFG TWENTYONE	5 000	0%	149 100	0%
GRAPAES	57 806	10%	131 380	2%
EVANS DELIGHT	15 654	0%	104 858	0%
ARRATHIRTEEN	10 000	0%	98 500	0%
SHEEGENE 13	335 222	5%	85 107	27%
SHEEGENE 20	111 394	18%	78 325	14%

Graph 3 shows the number of table grape vines grafted over the last five years, of the ten most used varieties in 2021. The order in which the varieties appear refers to the total number of vines made over the five-year period.



GRAPH 3 Top 10 table grape varieties grafted in 2021

9.3 Drying grape vines grafted in 2021

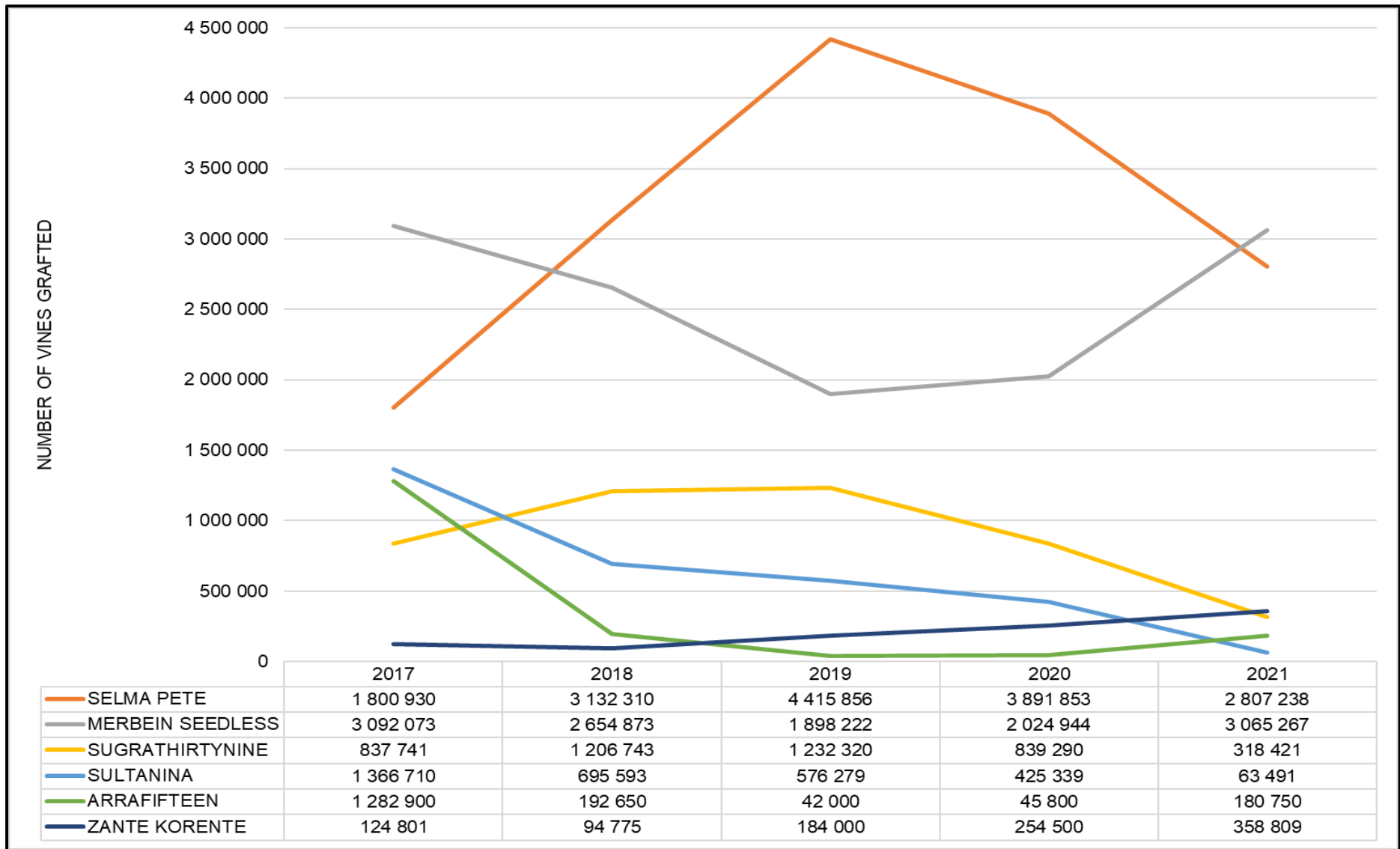
- 6 888 751 vines grafted compared to 7 613 110 in 2020
- 11 varieties (18 clones)
- 14 registered clones and 6 candidate clones
- 90.2% of grafted vines certified compared to 97.3% in 2020
- 61% of grafted vines are from units tested for leafroll (19.1% in 2020)

Table 9 lists the drying grape varieties grafted as well as the % certified material thereof issued.

TABLE 9 Drying grape varieties grafted in 2021 compared to 2020

VARIETY	2020	% CERTIFIED	2021	% CERTIFIED
MERBEIN SEEDLESS	2 024 944	97%	3 065 267	97%
SELMA PETE	3 891 853	99.8%	2 807 238	88%
ZANTE KORENTE	254 500	100%	358 809	94%
SUGRATHIRTYNINE	839 290	100%	318 421	100%
ARRAFIFTEEN	45 800	0%	180 750	0%
SULTANINA	425 339	88%	63 491	74%
DOVINE	60 950	100%	54 900	100%
DIAMOND MUSCAT	11 203	100%	23 117	100%
SUN MUSCAT	16 610	0%	16 001	0%
SUNDOWNER	24 200	0%	720	0%
DATAL	3 500	0%	37	0%
IFG 104-253	14 751	100%		
SUMMER MUSCAT	170	100%		

Graph 4 shows the number of drying grape vines grafted over the last five years, of the six most used varieties in 2021. The order in which the varieties appear refers to the total number of vines made over the five-year period.



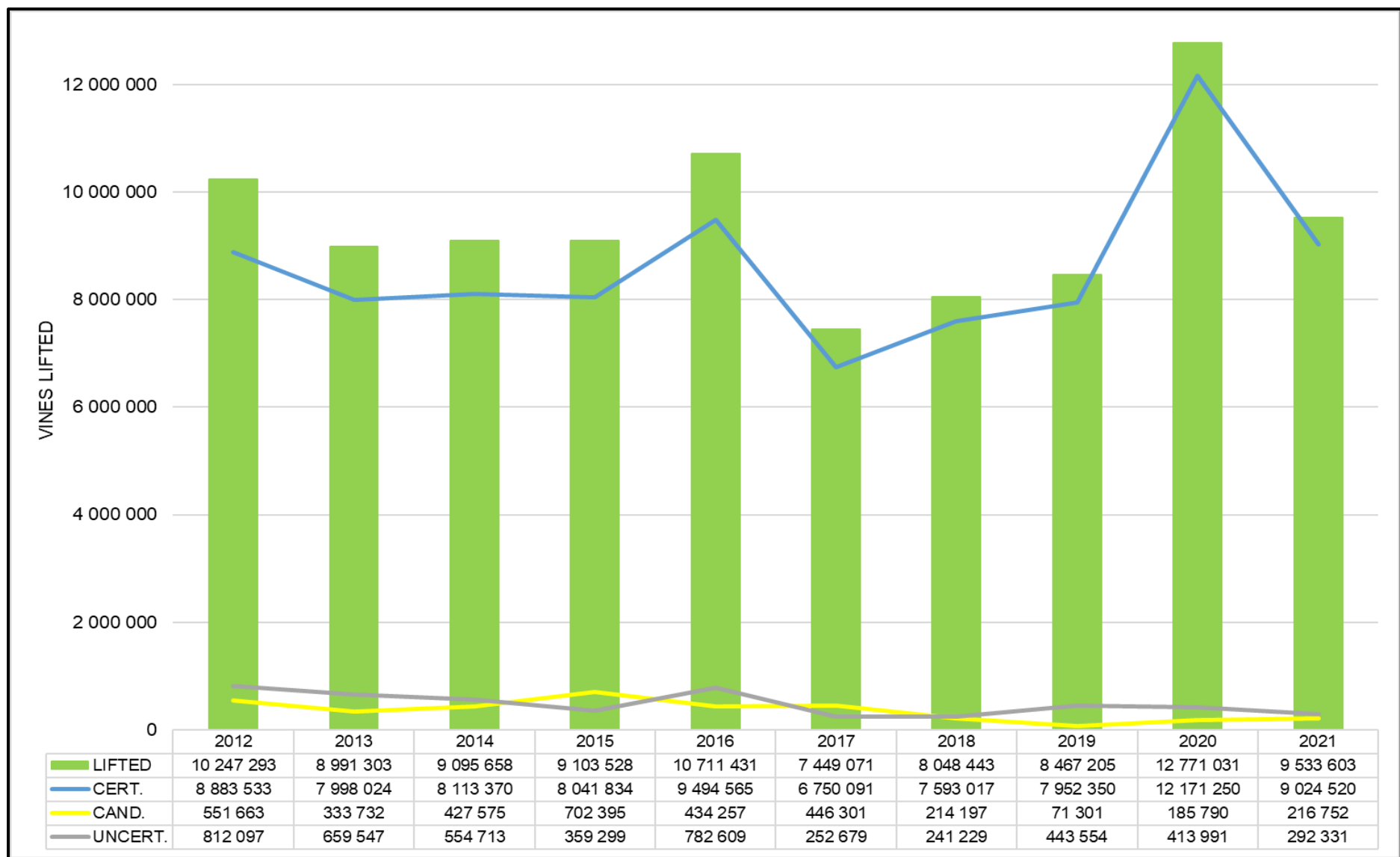
GRAPH 4 Top 6 drying grapes grafted in 2021

10. TEN YEARS IN PERSPECTIVE

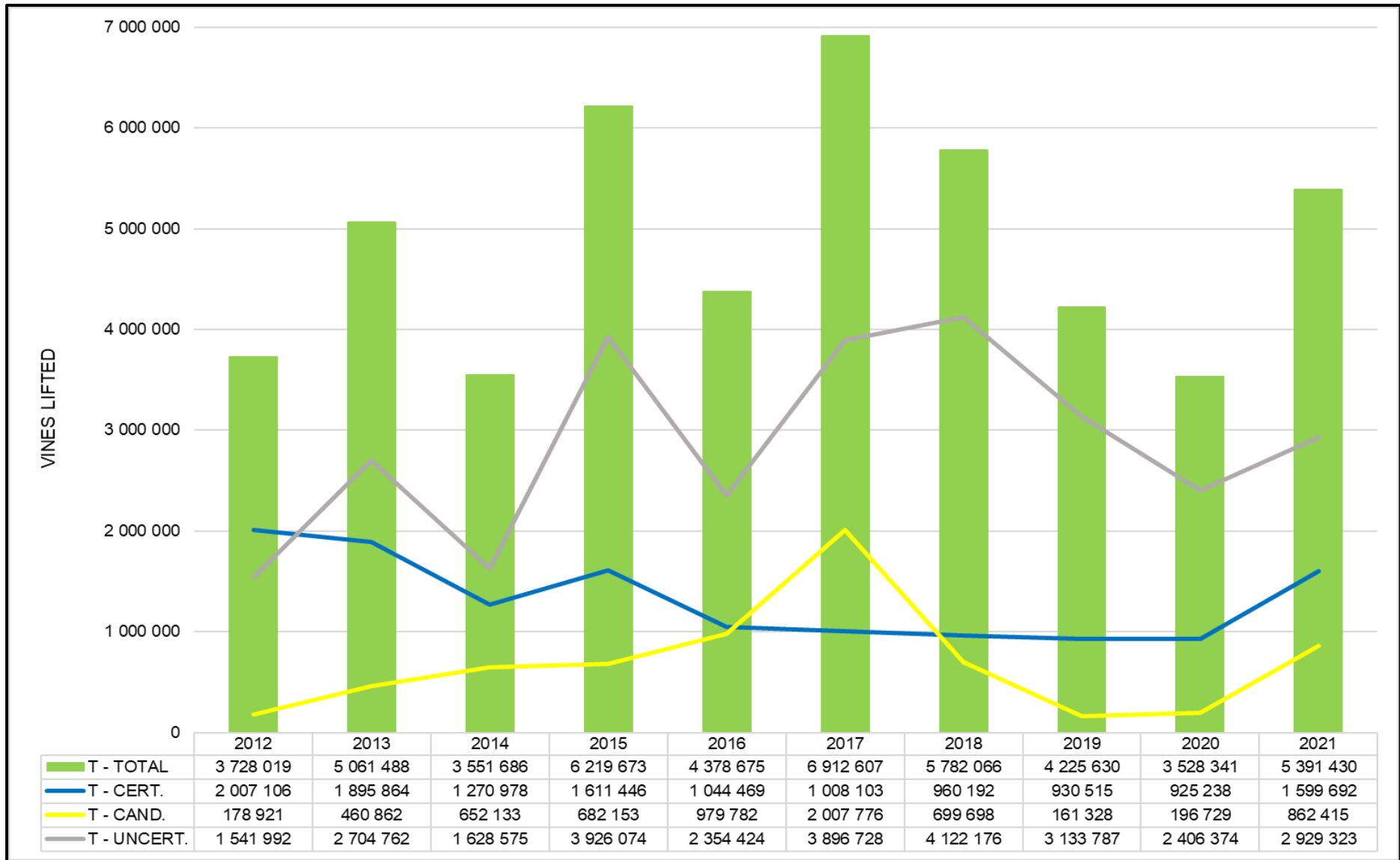
The certification status of vines lifted in registered nurseries over the last ten years is represented in **Graphs 5 – 7**.

In the graphs the total number of vines lifted are indicated by the green bars, while the lines show the different certification statuses:

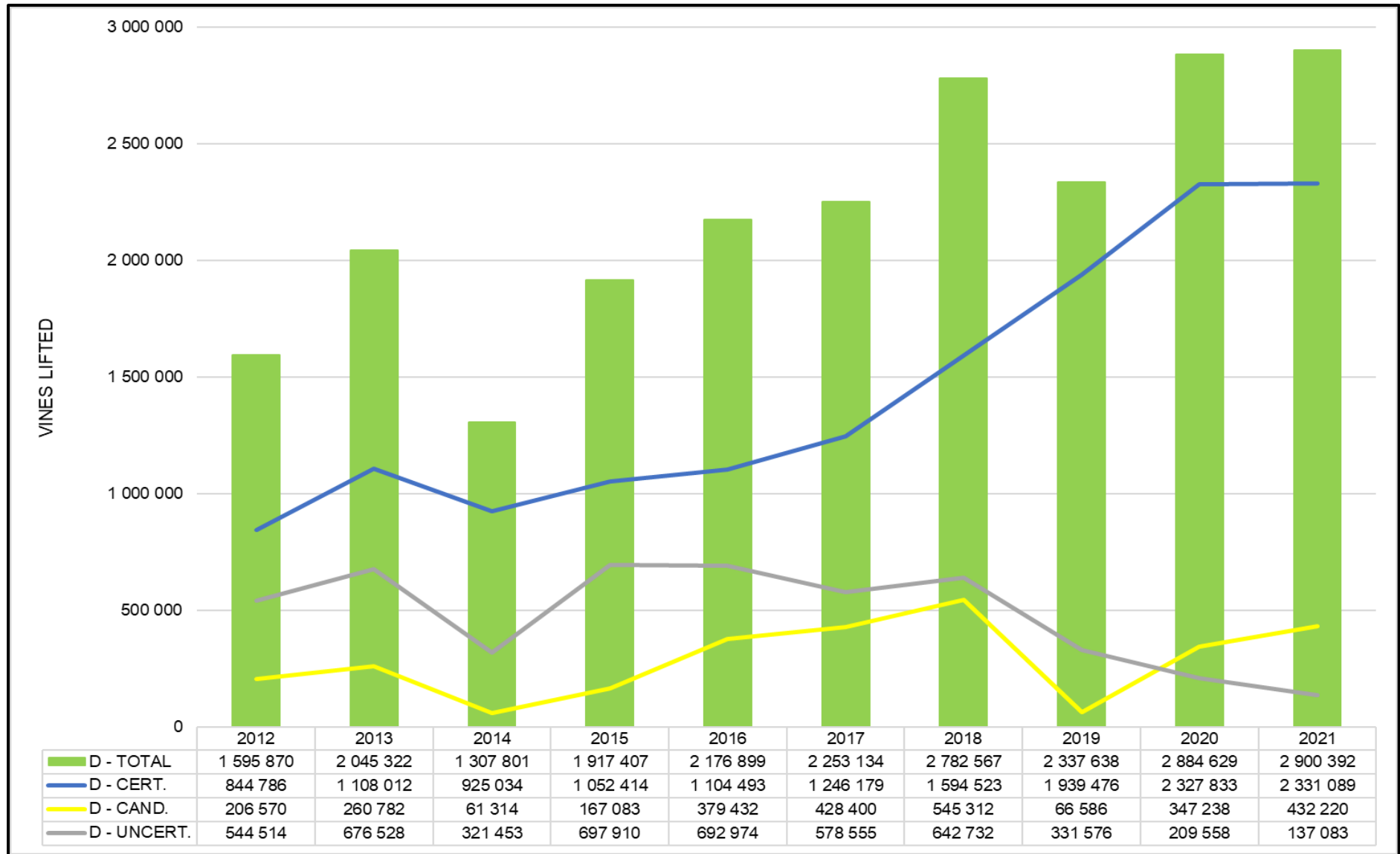
- Blue – certified vines;
- Yellow – candidate vines;
- Grey – uncertified vines.



GRAPH 5 Wine grapevines lifted in nurseries from 2012 to 2021



GRAPH 6 Table grapevines lifted in nurseries from 2012 to 2021



GRAPH 7 Drying grapevines lifted in nurseries from 2012 to 2021

11. ACKNOWLEDGEMENTS

The VIA wishes to thank every PIO and nurseryman who contributed in 2021 to the success of the South African Plant Certification Scheme for *Vitis*. Thank you also to all the individuals who served on the VIA Board, Technical Committee and Phytosanitary Working group in 2021.

Theo Heydenrych
VIA Chairman

Rachel Kriel
VIA Secretary