Essais variétaux de blé d‘automne 2023

Résultats des analyses de qualité

Exigences de qualité pour l'inscription d'une variété de blé sur la LR

Propriétés agronomiques

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Analyses de laboratoire (max. 100 points)

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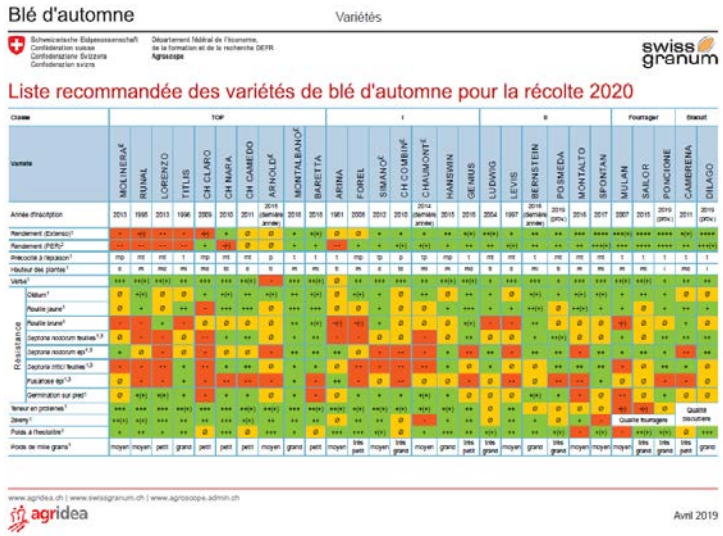
Tests de panification (max. 100 points)

Classe de qualité	Indice agronomique requis (points)	Teneur en gluten humide requis* (%)	Indice de qualité requis (points)
TOP	> 95	≥ 31% *	> 130
I	> 103	≥ 29% *	> 110 à 130
II	> 110	≥ 27% *	> 95 à 110
Blé fourrager	> 120		
Biscuit	> 110		Critères spécifiques

* Valeurs obtenues en PER; limites modulées selon le niveau global de l'année



Blé d'automne — Variétés

Liste recommandée des variétés de blé d'automne pour la récolte 2020

agridea — Avril 2019

Partenaires

swisssem

DSP

Forum Ackerbau

Groupe Cultures Romandie

Agroscope

GMSA MÜHLEN · MOULINS · MULINI

swissmill Die Schweizer Getreidemühle.

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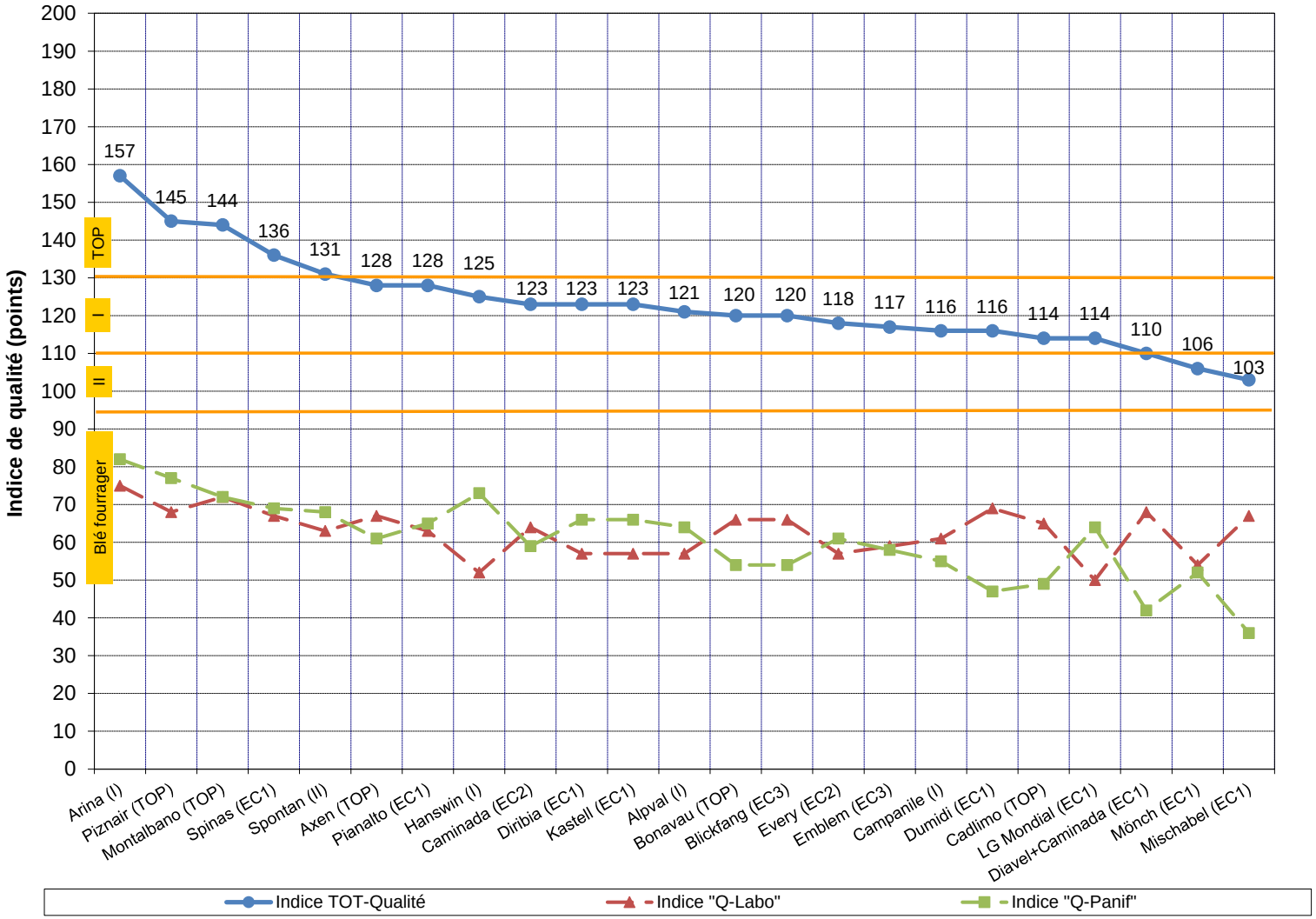
Variétés testées en 2023

Variétés de référence (qualité)	Témoins	1ère année (EC1)	2ème année (EC2)
Montalbano (TOP)	Piznair (TOP)	Diavel&Caminada	Caminada
Arina (I)	Bonavau (TOP)	Diribia	Every
Hanswin (I)	Axen (TOP)	Spinas	
Spontan (II)	Cadlimo (TOP)	Mönch	
	Alpval (I)	**Mischabel** (Axen+211.14074)	
	Campanile (I)	**Dumidi** (Caminada+211.14074)	
	Blickfang (EC3)	Pianalto	
	Emblem (EC3)	Kastell	
		LG Mondial	

Indices de qualité 2023



Résultats des analyses de qualité 2023

	Arina (I)	Piznair (TOP)	Montalbano (TOP)	Spinas (EC1)	Spontan (II)	Axen (TOP)	Pianalto (EC1)	Hanswin (I)	Caminada (EC2)	Diribia (EC1)	Kastell (EC1)	Alpval (I)
Zélény (ml)	63	60	66	63	55	64	58	53	60	57	60	58
Protéines (%)	11.1	11.8	10.9	10.2	9.9	10.2	8.9	9.3	10.0	8.9	8.7	9.3
Gluten (%)	30.2	28.9	29.6	26.5	26.7	26.5	21.6	25.1	23.7	21.9	22.9	22.6
Indice de gonflement à 0' (ml)	15	15	19	18	22	17	21	14	18	19	16	18
Indice de gonflement à 30' (ml)	10	13	14	16	17	14	16	13	17	13	10	18
Farino: absorption en eau (%)	64.9	65.3	63.1	59.5	63.5	57.0	67.2	59.2	65.7	58.0	60.2	64.9
Farino: résistence (min)	5.2	1.7	3.2	2.4	2.5	3.0	2.6	2.5	2.4	2.9	2.7	2.0
Farino:affaiblissement (BE)	44	55	37	45	75	32	68	88	78	70	68	103
Extenso: surface (cm2)	128	138	162	150	125	172	123	120	128	133	109	117
Extenso: DW/DB	2.00	3.50	3.80	2.60	3.20	2.80	3.90	2.60	3.30	3.30	3.50	3.60
Amylo: viscosité max (UA)	1’022	1’272	1’830	1’734	1’226	1’340	1’392	390	650	1’696	1’475	867
Temps de chute (s)	347	347	401	358	373	343	372	290	325	372	344	361

	Bonavau (TOP)	Blickfang (EC3)	Every (EC2)	Emblem (EC3)	Campanile (I)	Dumidi (EC1)	Cadlimo (TOP)	LG Mondial (EC1)	Diavel+Caminada (EC1)	Mönch (EC1)	Mischabel (EC1)
Zélény (ml)	63	70	58	62	55	65	61	42	65	46	69
Protéines (%)	10.2	9.7	9.6	8.9	9.5	10.9	10.2	8.9	9.9	9.2	10.4
Gluten (%)	26.8	25.7	24.5	22.7	22.9	26.6	25.3	23.1	24.1	25.3	28.6
Indice de gonflement à 0' (ml)	20	21	19	17	20	21	19	14	20	17	16
Indice de gonflement à 30' (ml)	16	18	17	14	15	17	17	11	17	11	14
Farino: absorption en eau (%)	59.5	63.6	59.3	66.6	64.1	65.8	65.9	62.3	63.8	61.5	62.0
Farino: résistence (min)	2.1	2.7	1.9	2.2	1.6	3.0	2.4	1.4	3.0	1.6	1.7
Farino:affaiblissement (BE)	68	76	87	82	95	75	82	86	53	99	75
Extenso: surface (cm2)	159	121	115	110	135	150	148	89	141	105	161
Extenso: DW/DB	2.70	2.60	3.00	3.40	2.80	2.90	3.20	4.40	3.30	4.00	2.10
Amylo: viscosité max (UA)	1’087	1’624	1’041	1’718	968	917	1’367	1’138	894	1’282	1’267
Temps de chute (s)	359	355	337	398	350	340	365	365	341	322	347

Indices des analyses de laboratoire et des tests de panification 2023

	Arina (I)	Piznair (TOP)	Montalbano (TOP)	Spinas (EC1)	Spontan (II)	Axen (TOP)	Pianalto (EC1)	Hanswin (I)	Caminada (EC2)	Diribia (EC1)	Kastell (EC1)	Alpval (I)
Zélény *(1-10 points)*	9	8	9	9	7	9	7	6	8	7	8	7
Protéines *(1-10 points)*	4	4	3	3	2	3	1	2	3	1	1	2
Gluten *(1-10 points)*	6	5	6	4	4	4	2	4	3	2	2	2
Indice de gonflement à 0' *(1-5 points)*	2	2	3	3	4	3	4	2	3	3	3	3
Indice de gonflement à 30' *(1-5 points)*	3	3	3	4	4	3	4	3	4	3	3	4
Farino: absorption en eau *(1-10 points)*	7	7	6	4	6	3	8	4	7	4	5	7
Farino: résistence *(1-10 points)*	6	1	2	1	1	2	1	1	1	1	1	1
Farino: affaiblissement *(1-10 points)*	9	8	10	9	6	10	7	5	6	6	7	3
Extenso: surface *(1-10 points)*	9	10	10	10	9	10	9	9	9	10	7	8
Extenso: DW/DB *(1-10 points)*	10	10	10	10	10	10	10	10	10	10	10	10
Amylo: viscosité max *(1-5 points)*	5	5	5	5	5	5	5	2	5	5	5	5
Temps de chute *(1-5 points)*	5	5	5	5	5	5	5	4	5	5	5	5
Indice "Q-Labo" 2023	**75**	**68**	**72**	**67**	**63**	**67**	**63**	**52**	**64**	**57**	**57**	**57**
Indice "Q-panif" 2023	**82**	**77**	**72**	**69**	**68**	**61**	**65**	**73**	**59**	**66**	**66**	**64**
Indice "Q-Global" 2023	**157**	**145**	**144**	**136**	**131**	**128**	**128**	**125**	**123**	**123**	**123**	**121**

Indices des analyses de laboratoire et des tests de panification 2023

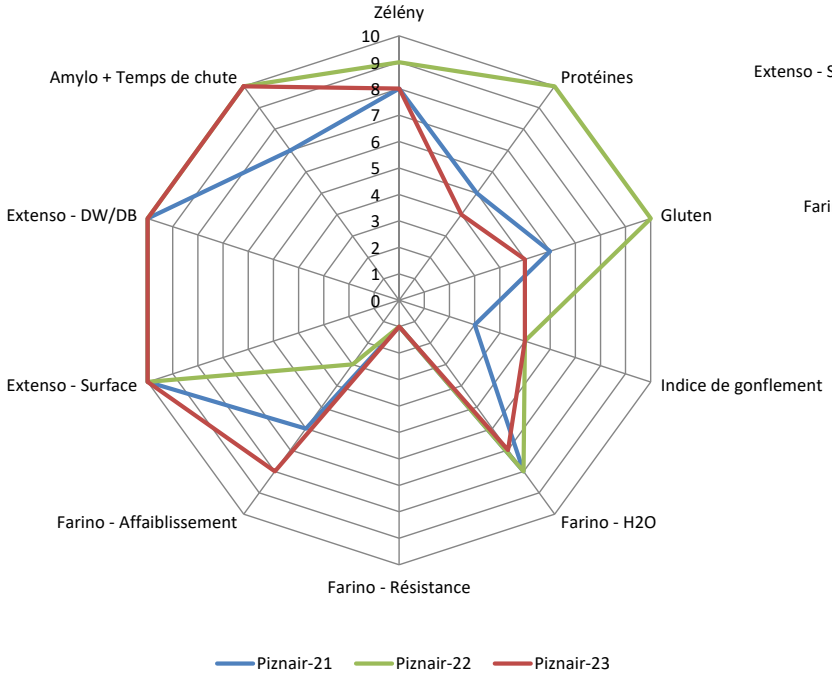
	Bonavau (TOP)	Blickfang (EC3)	Every (EC2)	Emblem (EC3)	Campanile (I)	Dumidi (EC1)	Cadlimo (TOP)	LG Mondial (EC1)	Diavel+Caminada (EC1)	Mönch (EC1)	Mischabel (EC1)
Zélény *(1-10 points)*	9	10	7	8	7	9	8	4	9	5	10
Protéines *(1-10 points)*	3	2	2	1	2	3	3	1	2	2	3
Gluten *(1-10 points)*	4	4	3	2	2	4	4	3	3	4	5
Indice de gonflement à 0' *(1-5 points)*	4	4	3	3	4	4	3	2	4	3	3
Indice de gonflement à 30' *(1-5 points)*	4	4	4	3	4	4	4	3	4	3	3
Farino: absorption en eau *(1-10 points)*	4	6	4	8	7	7	7	6	6	5	6
Farino: résistence *(1-10 points)*	1	1	1	1	1	2	1	1	2	1	1
Farino: affaiblissement *(1-10 points)*	7	6	5	5	4	6	5	5	8	4	6
Extenso: surface *(1-10 points)*	10	9	8	8	10	10	10	5	10	7	10
Extenso: DW/DB *(1-10 points)*	10	10	10	10	10	10	10	10	10	10	10
Amylo: viscosité max *(1-5 points)*	5	5	5	5	5	5	5	5	5	5	5
Temps de chute *(1-5 points)*	5	5	5	5	5	5	5	5	5	5	5
Indice "Q-Labo" 2023	**66**	**66**	**57**	**59**	**61**	**69**	**65**	**50**	**68**	**54**	**67**
Indice "Q-panif" 2023	**54**	**54**	**61**	**58**	**55**	**47**	**49**	**64**	**42**	**52**	**36**
Indice "Q-Global" 2023	**120**	**120**	**118**	**117**	**116**	**116**	**114**	**114**	**110**	**106**	**103**

Classe TOP

Montalbano

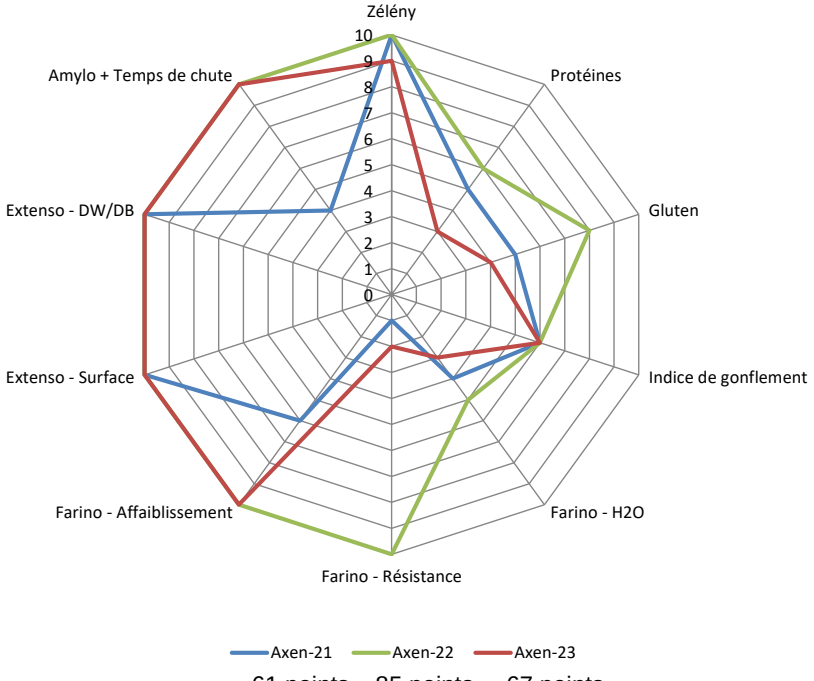
75 points 81 points 72 points

Piznair



64 points 76 points 68 points

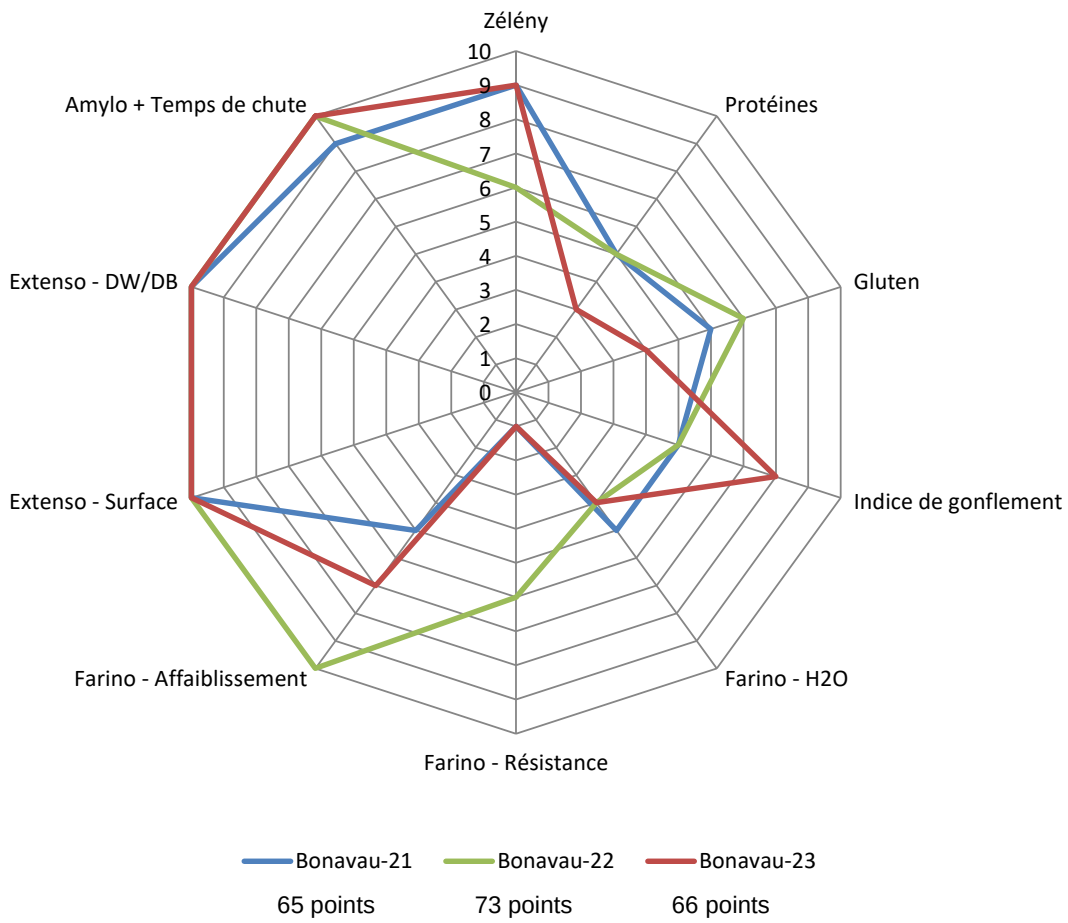
Axen



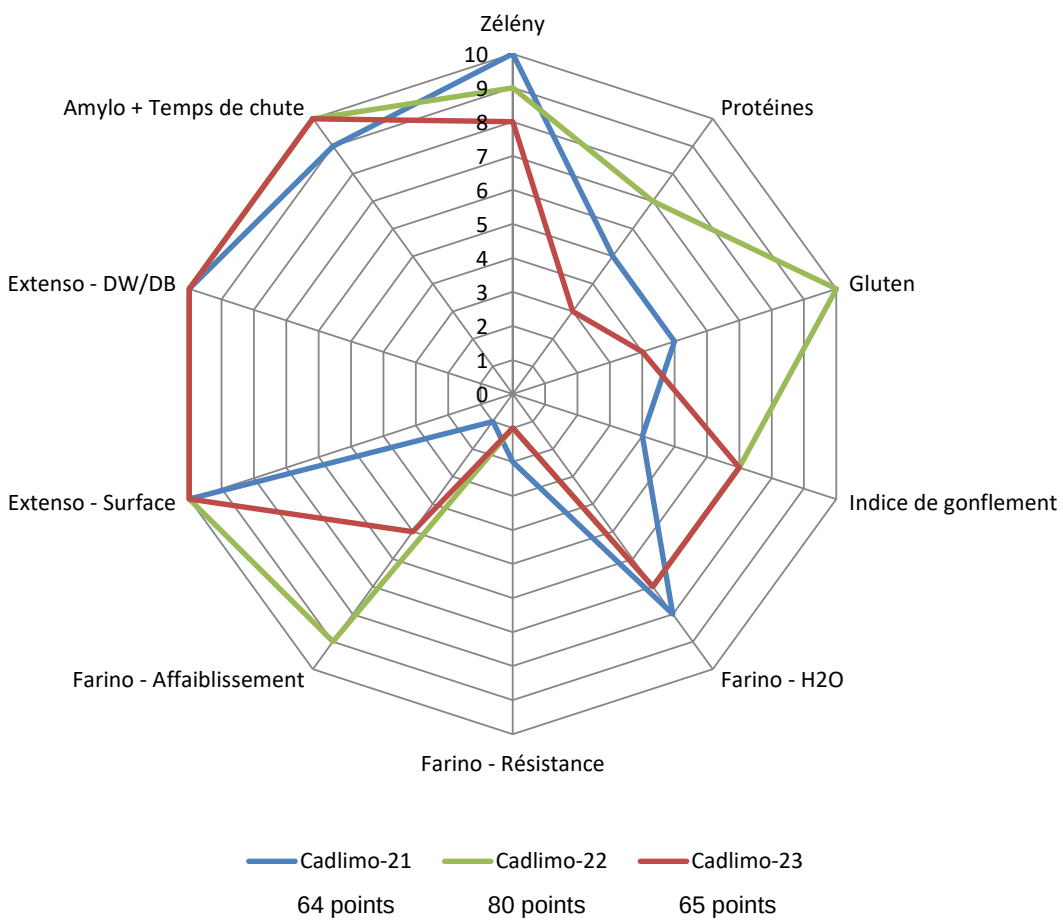
61 points 85 points 67 points

Classe TOP

Bonavau

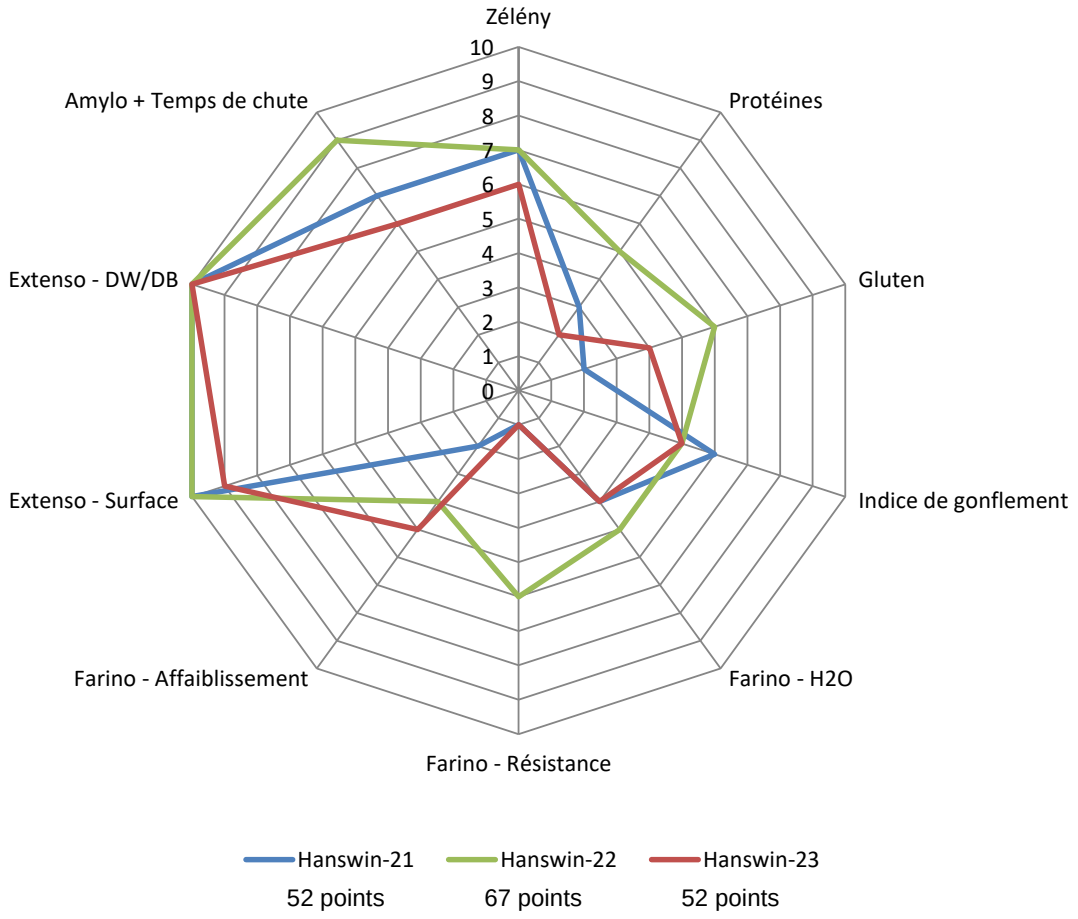


Cadlimo

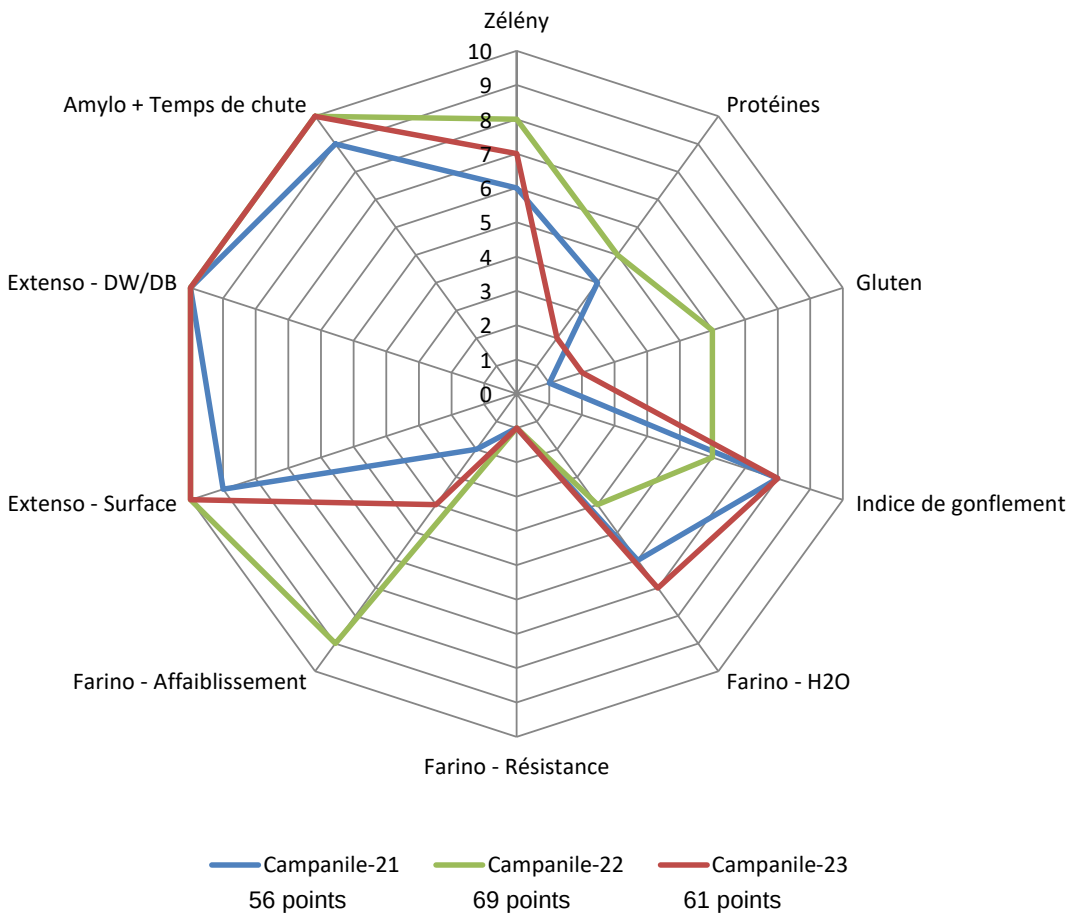


Classe I

Hanswin

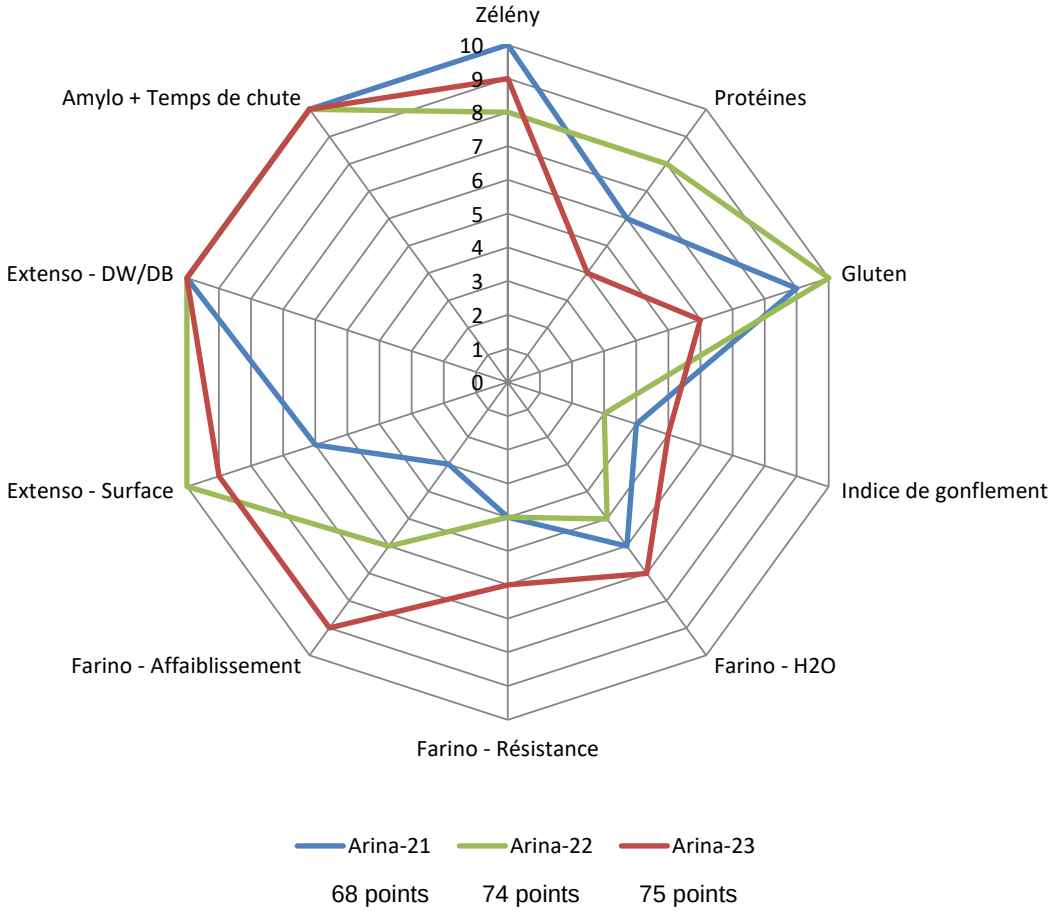


Campanile

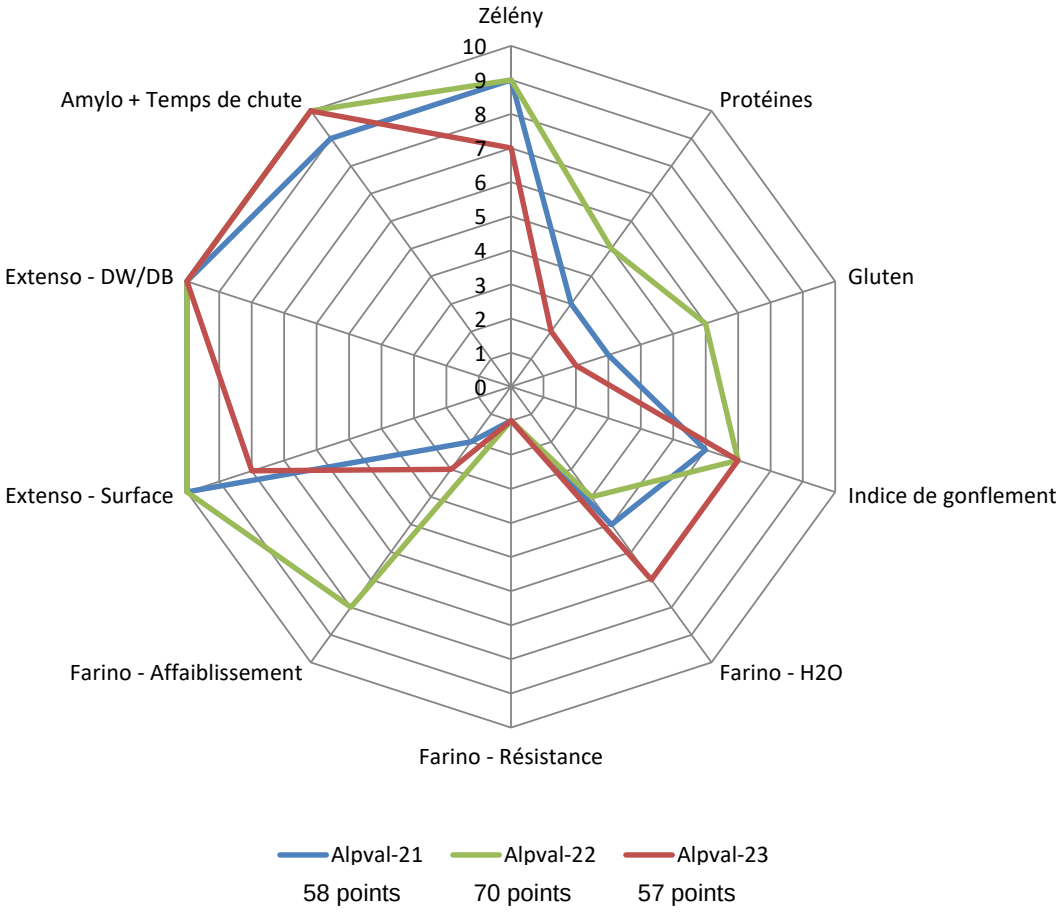


Classe I

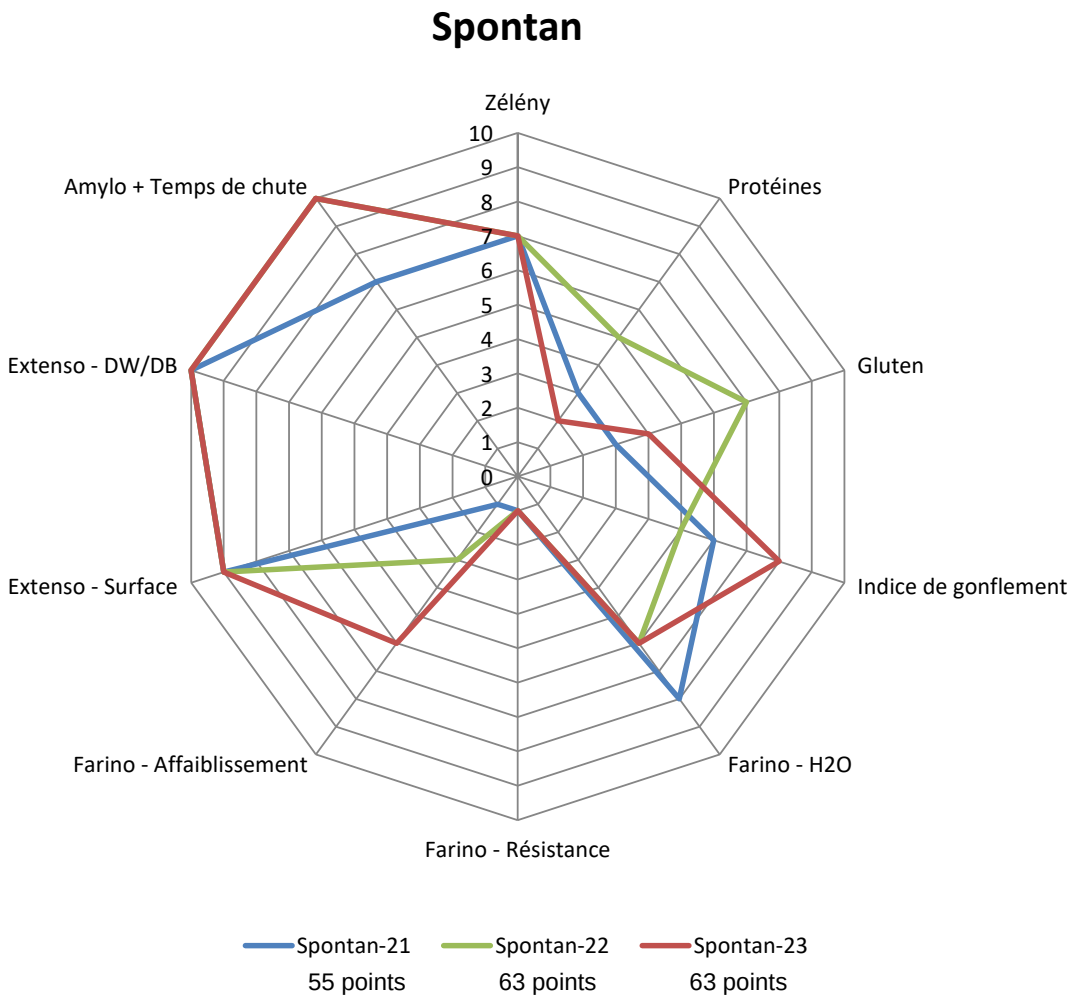
Arina



Alpval

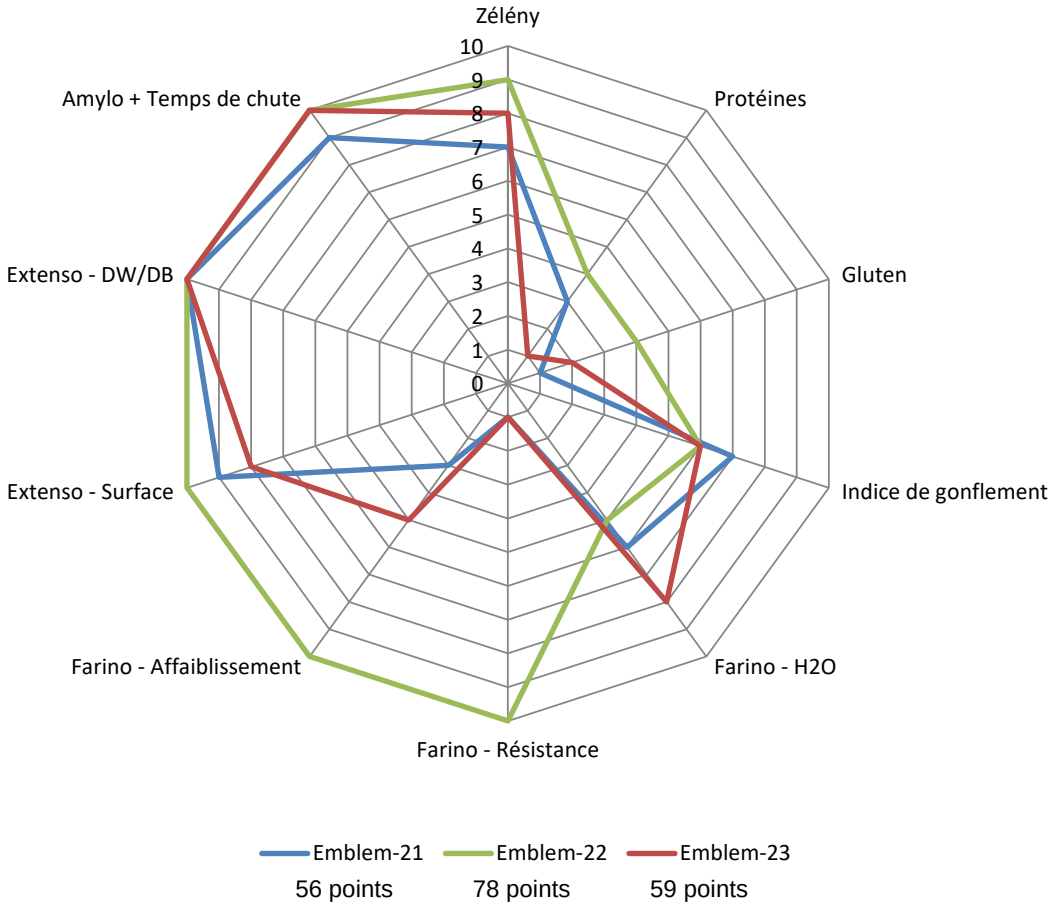


Classe II

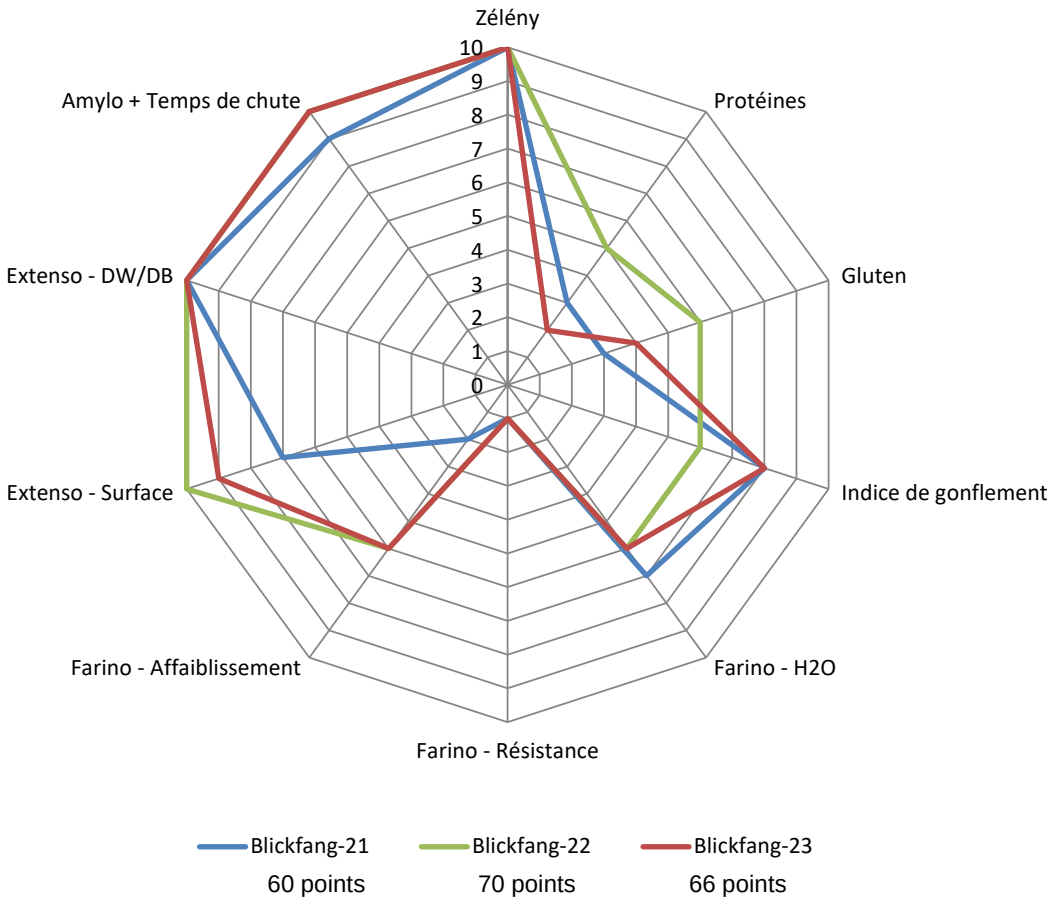

Spontan
Zélény
Protéines
Gluten
Indice de gonflement
Farino - H2O
Farino - Résistance
Farino - Affaiblissement
Extenso - Surface
Extenso - DW/DB
Amylo + Temps de chute
10
9
8
7
6
5
4
3
2
1
0
Spontan-21
55 points
Spontan-22
63 points
Spontan-23
63 points

Variétés candidates

Emblem

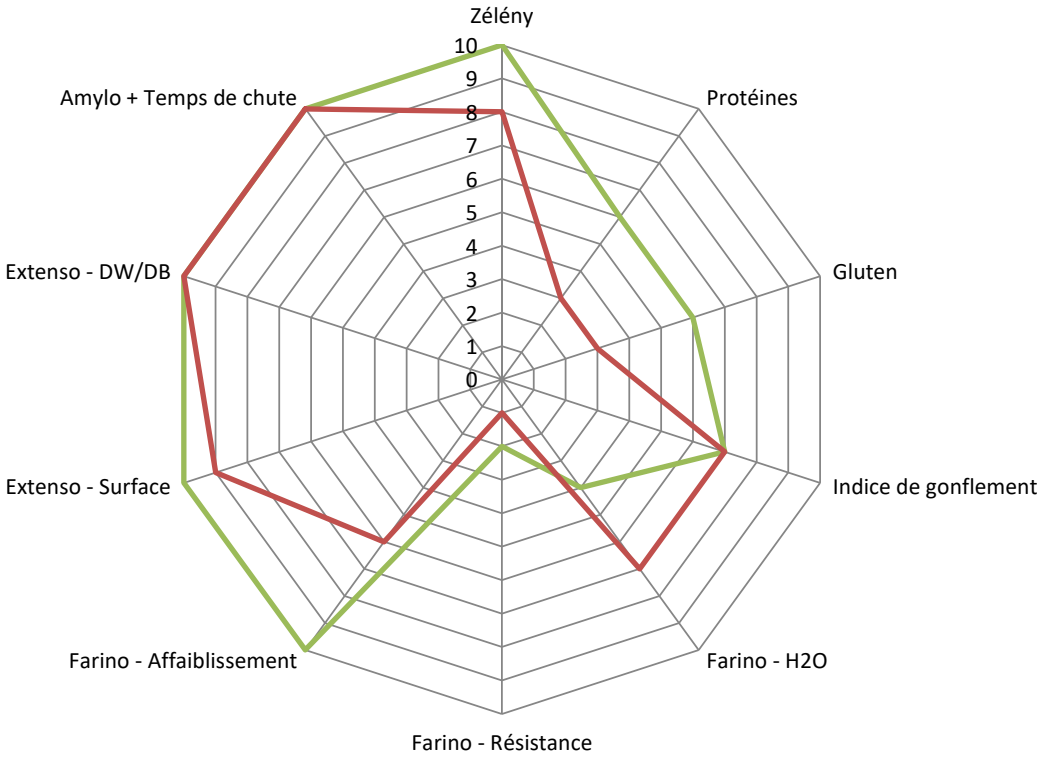


Blickfang



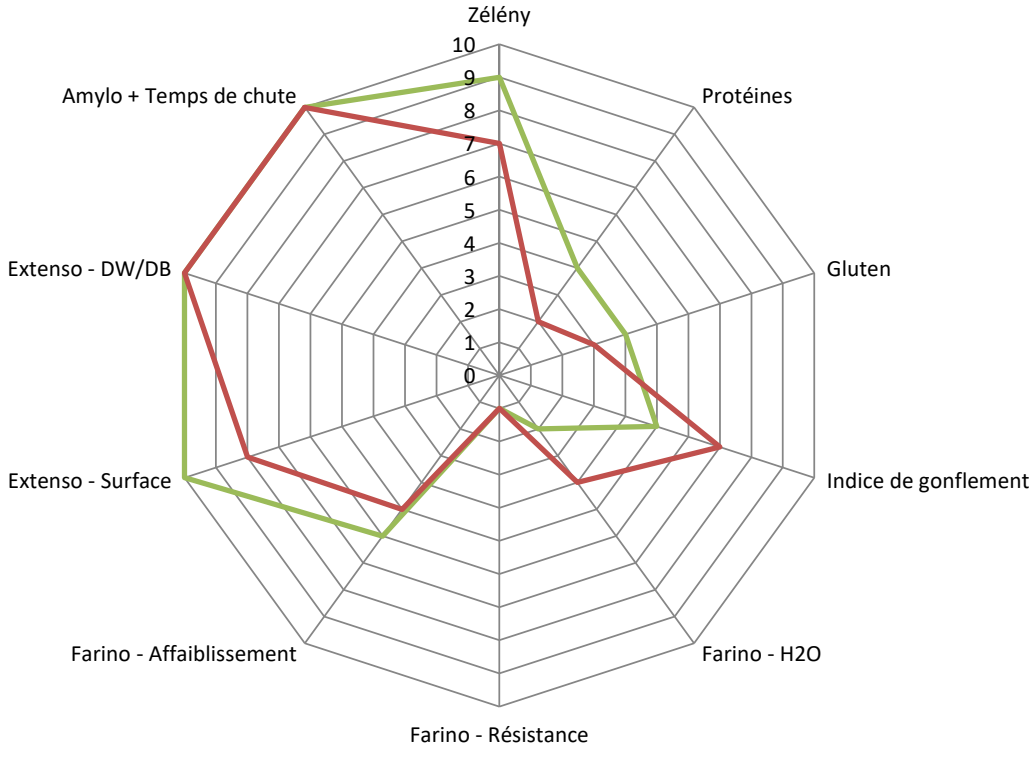
Variétés candidates

Caminada



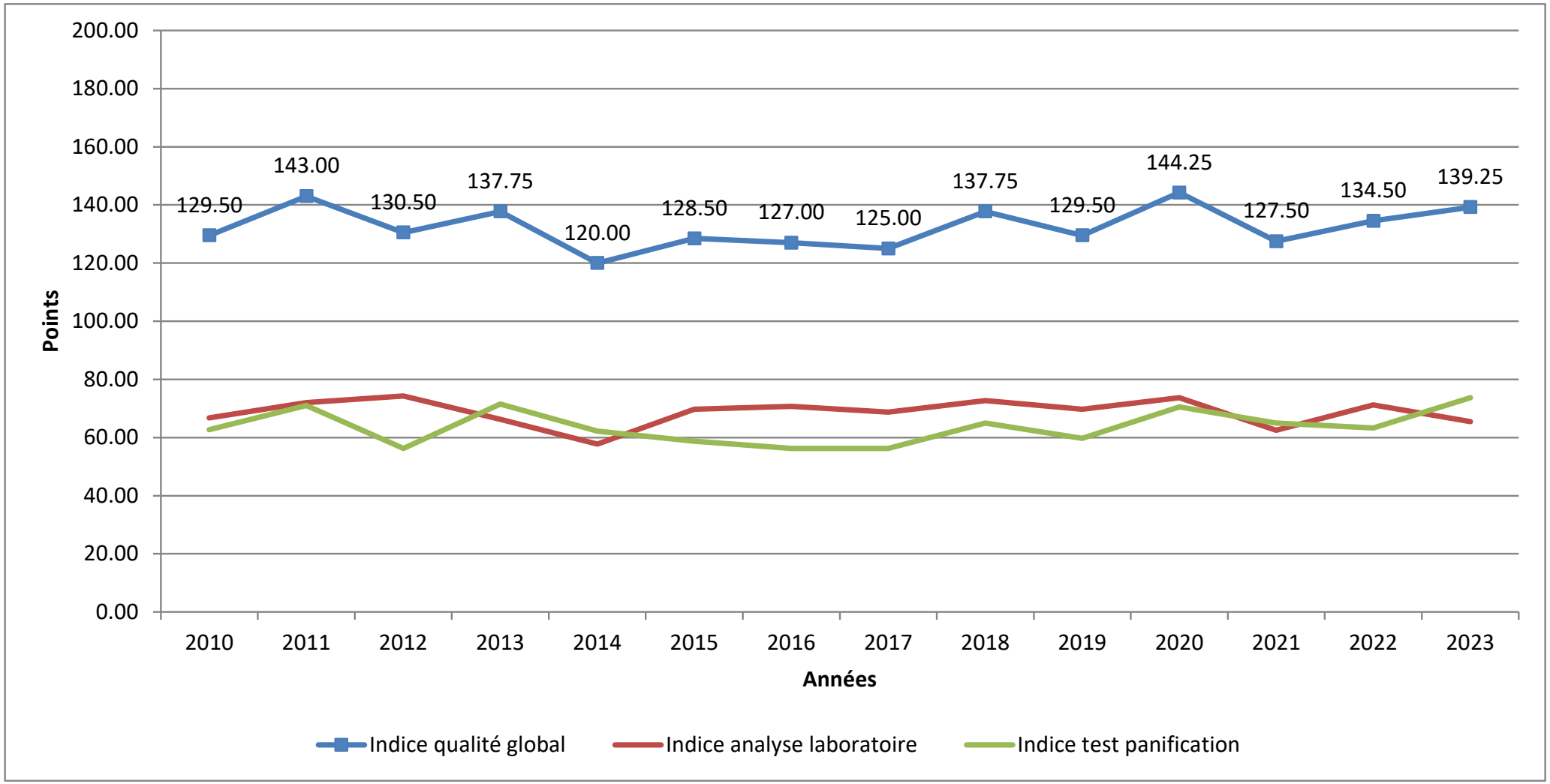
75 points 64 points

Every



61 points 57 points

Moyennes des indices de qualité globaux des variétés de référence 2010-2023



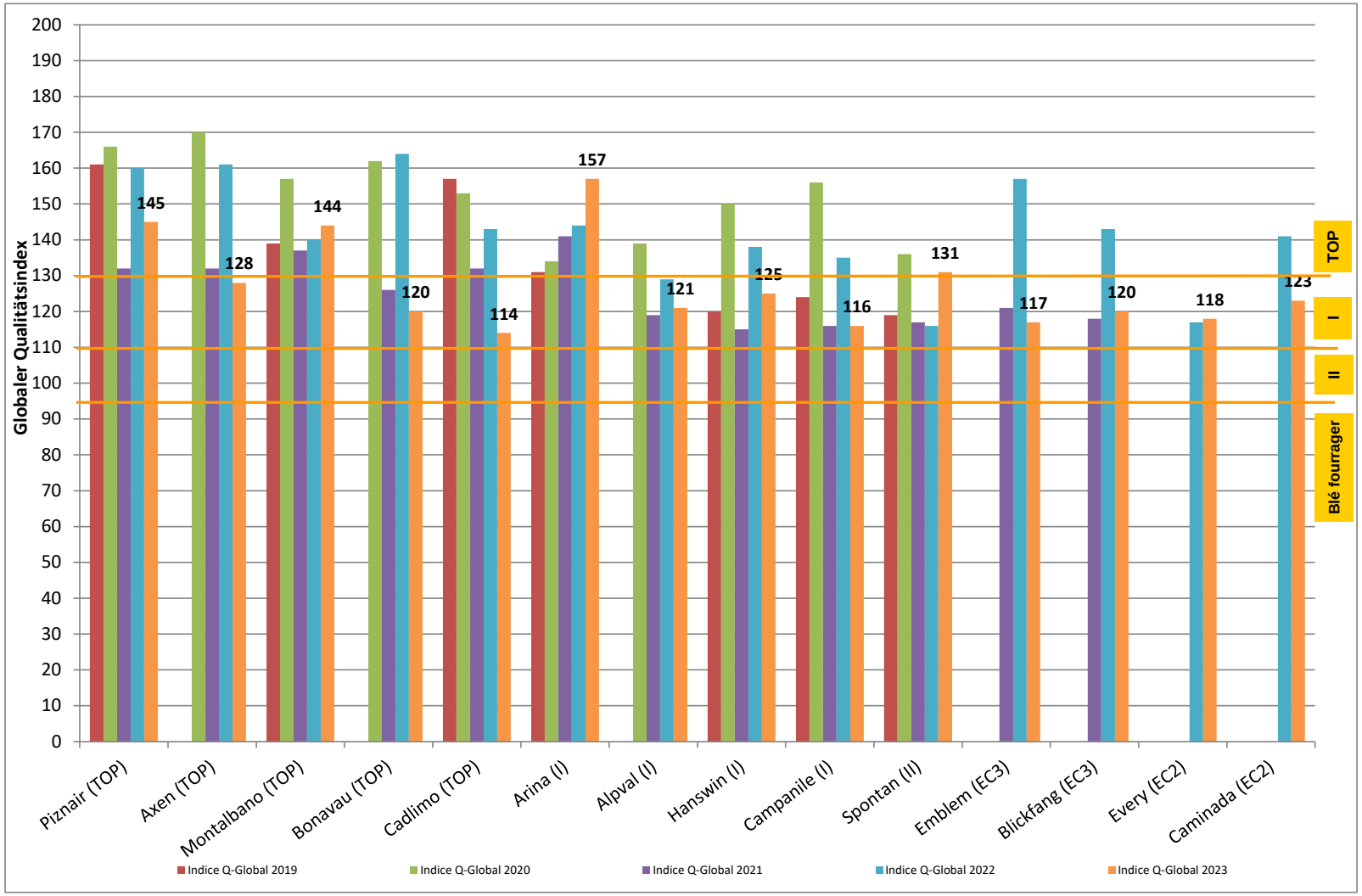
Résultats des analyses de qualité 2013 à 2023

	Piznair (TOP)	Axen (TOP)	Montalbano (TOP)	Bonavau (TOP)	Cadlimo (TOP)	Arina (I)	Alpval (I)	Hanswin (I)	Campanile (I)	Spontan (II)	Emblem (EC3)	Blickfang (EC3)	Every (EC2)	Caminada (EC2)	Diavel&Caminada (EC1)	Diribia (EC1)	Spinas (EC1)	Mönch (EC1)	Mischabel (EC1)	Dumidi (EC1)	Pianalto (EC1)	Kastell (EC1)	LG Mondial (EC1)
Indice Q-Global 2013						137		137															
Indice Q-Global 2014						134		120															
Indice Q-Global 2015						142		120		112													
Indice Q-Global 2016			138			114		130		117													
Indice Q-Global 2017			134			118		123		120													
Indice Q-Global 2018	164		152		161	128		133		129													
Indice Q-Global 2019	161		139		157	131		120	124	119													
Indice Q-Global 2020	166	170	157	162	153	134	139	150	156	136													
Indice Q-Global 2021	132	132	137	126	132	141	119	115	116	117	121	118											
Indice Q-Global 2022	160	161	140	164	143	144	129	138	135	116	157	143	117	141									
Indice Q-Global 2023	145	128	144	120	114	157	121	125	116	131	117	120	118	123	110	123	136	106	103	116	128	123	114

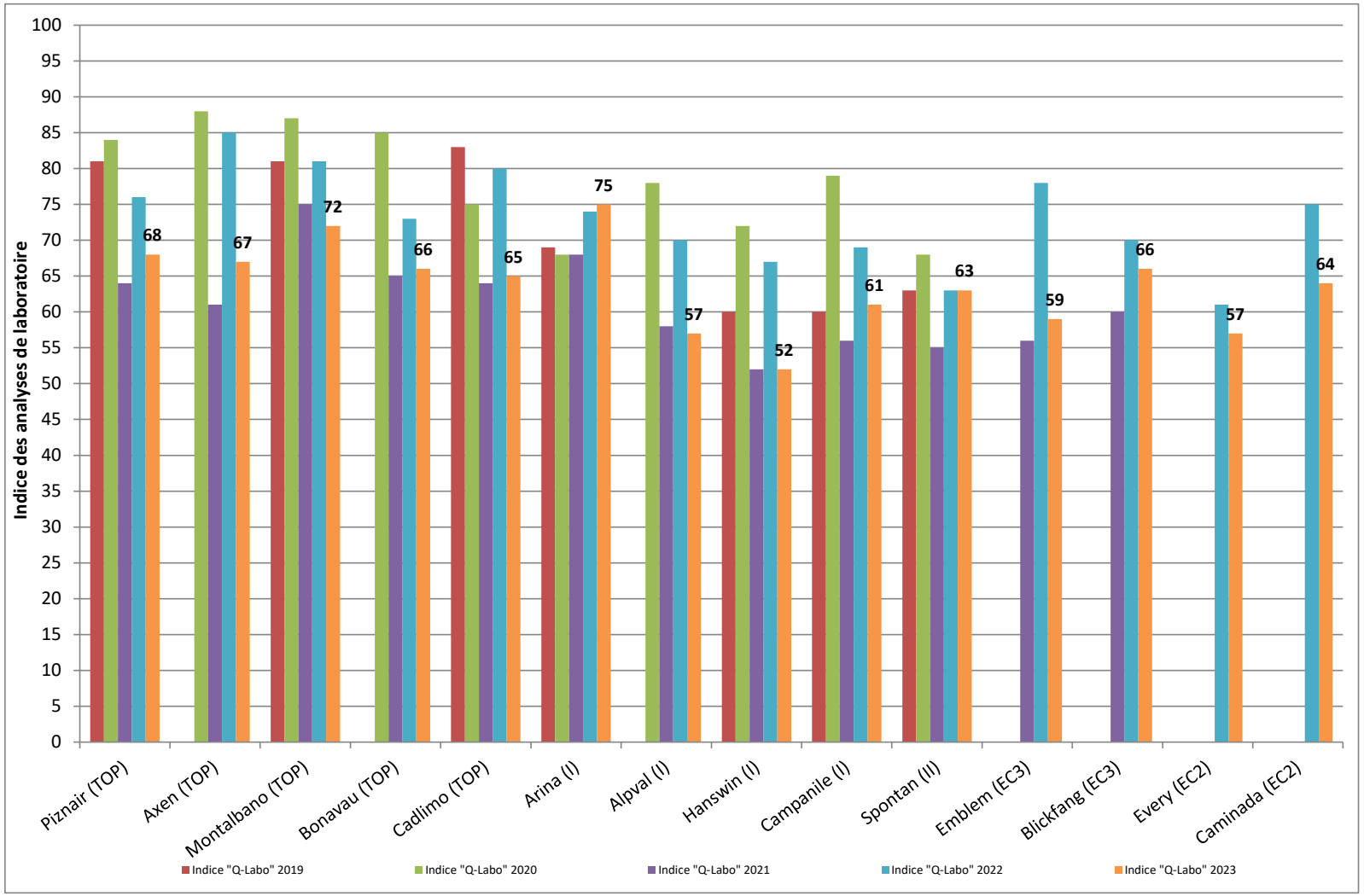
	Piznair (TOP)	Axen (TOP)	Montalbano (TOP)	Bonavau (TOP)	Cadlimo (TOP)	Arina (I)	Alpval (I)	Hanswin (I)	Campanile (I)	Spontan (II)	Emblem (EC3)	Blickfang (EC3)	Every (EC2)	Caminada (EC2)	Diavel&Caminada (EC1)	Diribia (EC1)	Spinas (EC1)	Mönch (EC1)	Mischabel (EC1)	Dumidi (EC1)	Pianalto (EC1)	Kastell (EC1)	LG Mondial (EC1)
Indice "Q-Labo" 2013						62		64															
Indice "Q-Labo" 2014						57		54															
Indice "Q-Labo" 2015						81		61		58													
Indice "Q-Labo" 2016			87			63		75		67													
Indice "Q-Labo" 2017			82			61		68		65													
Indice "Q-Labo" 2018	80		85		89	66		68		70													
Indice "Q-Labo" 2019	81		81		83	69		60	60	63													
Indice "Q-Labo" 2020	84	88	87	85	75	68	78	72	79	68													
Indice "Q-Labo" 2021	64	61	75	65	64	68	58	52	56	55	56	60											
Indice "Q-Labo" 2022	76	85	81	73	80	74	70	67	69	63	78	70	61	75									
Indice "Q-Labo" 2023	68	67	72	66	65	75	57	52	61	63	59	66	57	64	68	57	67	54	67	69	63	57	50

	Piznair (TOP)	Axen (TOP)	Montalbano (TOP)	Bonavau (TOP)	Cadlimo (TOP)	Arina (I)	Alpval (I)	Hanswin (I)	Campanile (I)	Spontan (II)	Emblem (EC3)	Blickfang (EC3)	Every (EC2)	Caminada (EC2)	Diavel&Caminada (EC1)	Diribia (EC1)	Spinas (EC1)	Mönch (EC1)	Mischabel (EC1)	Dumidi (EC1)	Pianalto (EC1)	Kastell (EC1)	LG Mondial (EC1)
Indice "Q-Panif" 2013						75		73															
Indice "Q-Panif" 2014						77		66															
Indice "Q-Panif" 2015						61		59		54													
Indice "Q-Panif" 2016			51			51		55		50													
Indice "Q-Panif" 2017			52			57		55		55													
Indice "Q-Panif" 2018	84		67		72	62		65		59													
Indice "Q-Panif" 2019	80		58		74	62		60	64	56													
Indice "Q-Panif" 2020	82	82	70	77	78	66	61	78	77	68													
Indice "Q-Panif" 2021	68	71	62	61	68	73	61	63	60	62	65	58											
Indice "Q-Panif" 2022	84	76	59	91	63	70	59	71	66	53	79	73	56	66									
Indice "Q-Panif" 2023	77	61	72	54	49	82	64	73	55	68	58	54	61	59	42	66	69	52	36	47	65	66	64

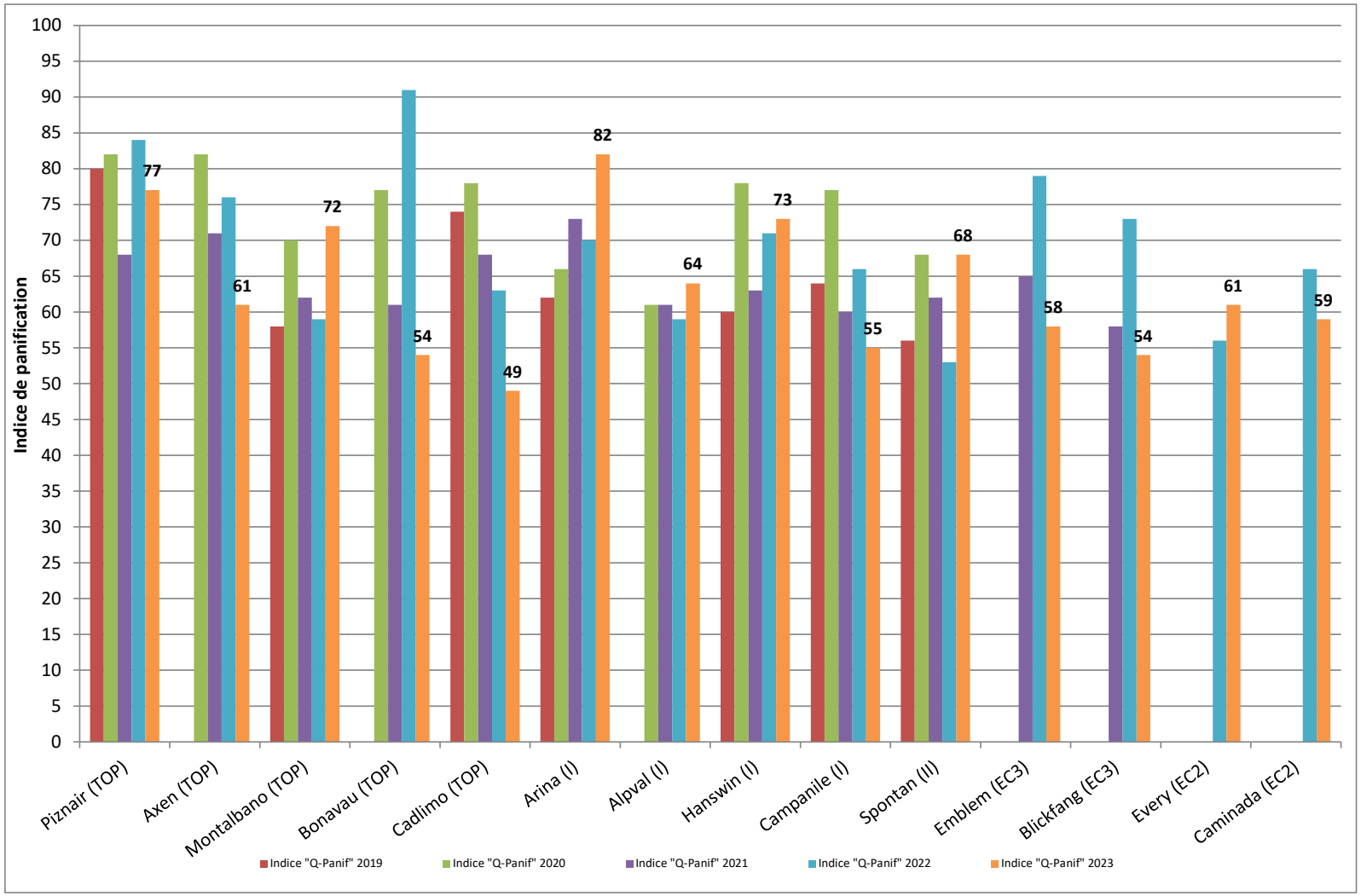
Indices de qualité globaux de 2019 à 2023



Indices des analyses de laboratoire de 2019 à 2023



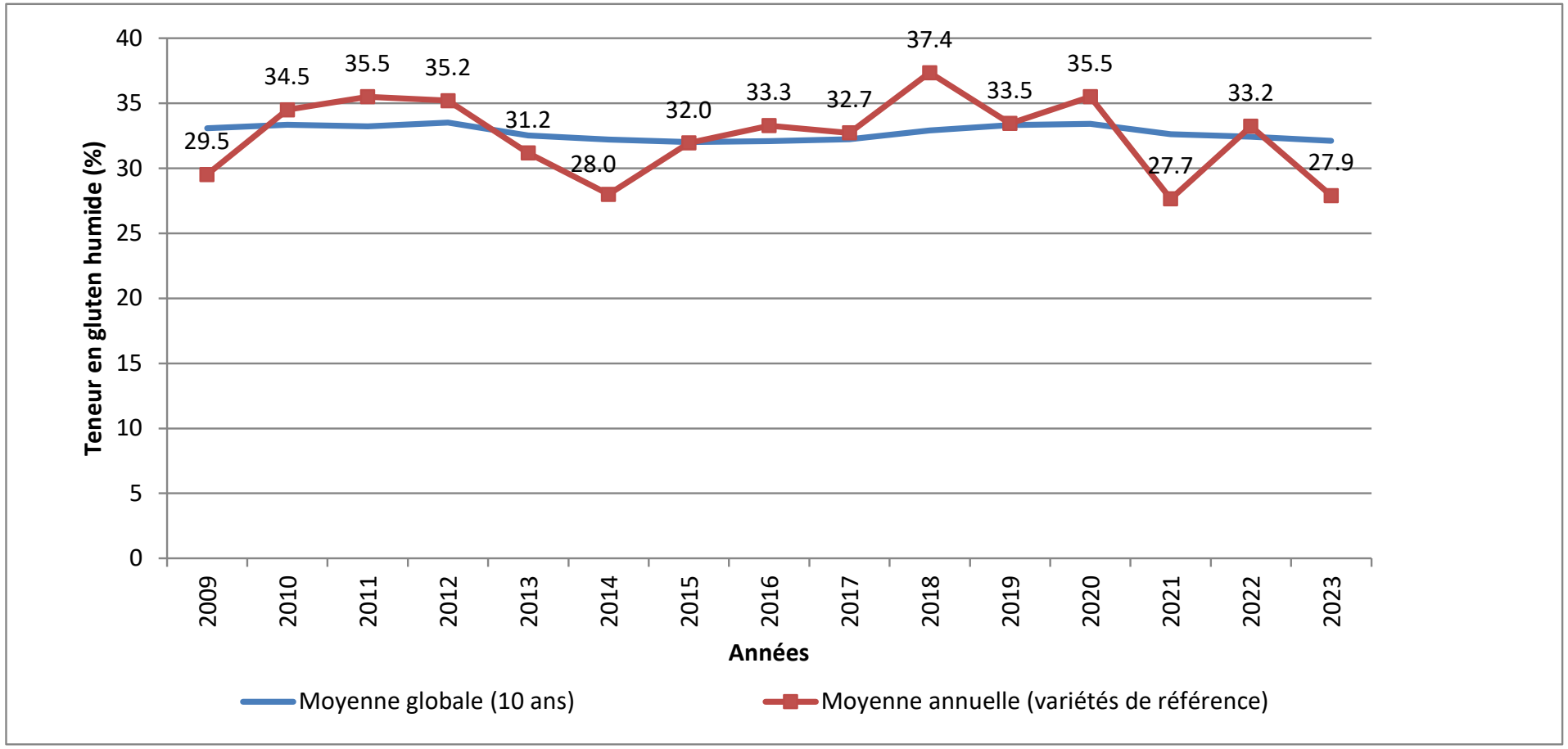
Indices des tests de panification de 2019 à 2023



Teneurs en gluten humide: valeurs limites pondérées

	Moyenne globale	Moyenne annuelle	Facteur de correction	Top	I	II
2001	32.6	**36.6**	**1.12**	34.8	32.5	30.3
2002	32.6	**32.5**	**1.00**	30.9	28.9	26.9
2003	33.3	**40.9**	**1.23**	38.1	35.6	33.2
2004	33.2	**31.2**	**0.94**	29.1	27.2	25.3
2005	33.5	**33.9**	**1.01**	31.4	29.4	27.4
2006	33.8	**32.6**	**0.96**	29.9	27.9	26.0
2007	34.2	**31.2**	**0.91**	28.3	26.5	24.7
2008	33.5	**30.5**	**0.91**	28.3	26.4	24.6
2009	33.1	**29.5**	**0.89**	27.7	25.9	24.1
2010	33.3	**34.5**	**1.03**	32.1	30.0	27.9
2011	33.2	**35.5**	**1.07**	33.1	31.0	28.8
2012	33.5	**35.2**	**1.05**	32.6	30.5	28.4
2013	32.5	**31.2**	**0.96**	29.7	27.8	25.9
2014	32.2	**28.0**	**0.87**	26.9	25.2	23.5
2015	32.0	**32.0**	**1.00**	30.9	28.9	26.9
2016	32.1	**33.3**	**1.04**	32.1	30.1	28.0
2017	32.2	**32.7**	**1.02**	31.5	29.4	27.4
2018	32.9	**37.4**	**1.13**	35.2	32.9	30.6
2019	33.3	**33.5**	**1.00**	31.1	29.1	27.1
2020	33.4	**35.5**	**1.06**	32.9	30.8	28.7
2021	32.6	**27.7**	**0.85**	26.3	24.6	22.9
2022	32.4	**33.2**	**1.02**	31.8	29.7	27.7
2023	32.1	**27.9**	**0.87**	26.9	25.2	23.5

Moyennes des teneurs en gluten humide des variétés de référence 2009-2023



Teneurs en gluten humide

Classe	TOP										I					II				Bisc.	Variétés candidates												
	Runal	Bodeli	CH Nara	Piznair	Axen	Diavel	Montalbano	Bonavau	Baretta	Cadlimo	Arina	Forel	Alpval	Hanswin	Campanile	Posmeda	Ludwig	Levis	Spontan	Dilago	Emblem	Blickfang	Every	Caminada	Diavel+Caminada	Diribia	Spinas	Mönch	Mischabel	Dumidi	Pianalto	Kastell	LG Mondial
2001	34.0										34.7							28.9															
2002	39.3										41.1							30.5															
2003	42.6										42.3							33.9															
2004	33.6										35.3						29.0	26.6															
2005	35.2										36.9						26.2	29.6															
2006	36.3										34.8						27.7	26.6															
2007	33.1										36.7	26.7					26.9	27.7															
2008	33.8		32.3								33.6	28.5						25.5															
2009	31.0		31.3								35.1	29.2						25.5															
2010	41.2		33.8								39.3	32.8						27.5															
2011	38.8		33.9								43.1	33.7						29.5															
2012	41.1										37.5	31.5						29.8															
2013	36.3										33.7	25.7		27.5				28.1															
2014	32.6										31.1	24.4		25.8				23.2															
2015			29.9								43.5	28.4		28.4				24.6	26.9														
2016			32.7				36.8		32.7		38.7			31.0				27.2	29.8														
2017			32.6				35.0		34.9		37.4			32.4		27.9		27.8	30.9	29.1													
2018			37.8	39.8		36.4	37.2		36.6	34.3	44.6			34.2		29.9			35.0	27.5													
2019			32.9	41.7		35.2	34.5		37.7	33.5	37.9			30.4	28.9	27.8			31.7	26.7													
2020			35.3	39.8	36.5	36.0	38.0	35.5	34.9	32.3	39.8		33.0	31.6	31.1	30.5			32.6														
2021		28.0	25.8	29.5	28.7	29.7	30.3	29.1	26.7	27.6	34.2		24.5	22.4	17.7	24.6			23.7		20.8	23.0											
2022		32.5	31.6	40.3	33.1	33.6	32.6	32.2		35.3	37.1		29.4	30.9	29.1	29.8			32.3		26.8	29.2	26.9	29.6									
2023				28.9	26.5		29.6	26.8		25.3	30.2		22.6	25.1	22.9				26.7		22.7	25.7	24.5	23.7	24.1	21.9	26.5	25.3	28.6	26.6	21.6	22.9	23.1