

**Table S1** Names of cultivars used in the experiment, including date of release as a commercial variety and pedigree.

No	Cultivar	Release date	Pedigree
1	AGT_Young	2005	VPM/3*Beulah//Siverstar
2	Alsen	2000	ND-674/ND-2710//ND-688
3	Annuello	2001	Pavon'S'/TM56//Janz
4	Arnhem	1996	'Pitic 62'/2 x 'Hartog'
5	Arrino	1997	'77W660' x 'Eradu'
6	Axe	2007	RAC/Kukri/Excalibur
7	Banks	1979	Thatcher/Ag.el//4*Heron(PWTH)/3/Cndr sib/4/2*Cndr
8	Barham	2007	Bowie//Bersee/3*Bindawarra126937///Bowie
9	Batavia	1991	Brochis'S'/Banks
10	Baxter	1997	'Inia 66'/'Gamut'/'Cook'/4/'Jupateco'/3/'Lerma Rojo' 64/'Sonora 64A'/'Timgalen'sib
11	Bolac	2006	Nesser/2*VI252
12	Bowie	1998	VPM1/4*WtW18/18 (Tatiara)
13	Brookton	1997	'Torres' x 'Cranbrook' x ((76W596) x 'Cranbrook')
14	Bullaring	2006	77-Z-893/81-Y-970
15	Cadoux	1992	Centrifen/Gamenya//Gamenya/3/Jacup
16	Calingiri	1997	'Chino'/'Kulin' x 'Reeves'
17	Carnamah	1996	Bolsena-ICH (RAC529,IW911)' x '77W:660
18	Cascades	1994	Qualset601-20(AUSEN VII-95)' x 'Aroona'(recurrent parent)
19	Chara	1999	BD225/CD87 (=Beulah sib//Pavon'S'/Condor)
20	Cook	1977	Timgalen/Condor sib//Condor
21	Correll	2006	RAC875 x Yitpi
22	Cunningham	1990	3Agd3/4*Condor//Cook
23	Dagger	1984	Sabre/Mec3//Insignia
24	Dollarbird	1997	icam //Ciano /Ciete Cerros/3/Kalyansona/Bluebird
25	Drysdale	2002	Hartog*3/Quarrion

26	EGA_2248	2003	WIALKI//LANCE/ERADU/3/MATONG*2/75-IRNS-60
27	EGA_Bonnie_Rock	2002	Sr9e.3*Warigal..3*Aroona(83Z:1048)/(82W:1097)3Ag3.4*Condor..3*Millewa.3.Bodallin
28	EGA_Burke	2006	Sunco/2*Hartog
29	EGA_Gregory	2004	Pelsart/2*Batavia doubled haploid line
30	EGA_Hume	2002	Pelsart/2*Batavia doubled haploid line
31	EGA_Jitarning	2003	Corrigin/3/(81Z354-4-41)Ag3C2*Lance//3*Tincurrin(Z522*62)/4/ (83Z:1175)Bobwhite/K6290
32	EGA_Kidman	2008	Pelsart/2*Batavia DH
33	EGA_Wentworth	2004	Janz/Vulcan//Janz
34	EGA_Wylie	2004	QT2327/Cook//QT2804
35	Ellison	2004	Vicam71/3*Suneca//SUN231A
36	Eradu	1982	Ciano/Gamenya
37	Espada	2008	RAC875, Excalibur, Krichauff and possibly a Trident derivative
38	Excalibur	1991	RAC177/Uniculm 492//RAC311S
39	Gamenya	1960	Gabo/3/Gabo*5/Mentana//Gabo*2/Kenya117A
40	Giles	1997	'Janz'/'Vulcan'
41	Gladius	2006	RAC/Kukri/Excalibur/Krichauff
42	H45	1998	Ciano67/2*Olympic/3/WW80/3*Anza//Kalyonsona/Bluebird
43	Halberd	1969	Scimitar/KenyaC6042//Bobin/3/Insignia49
44	Hartog	1982	VICAM S 71//CIANO F 67/SIETE CERROS T 66/3/KALYANSONIA/BLUEBIRD
45	Houtmann	1993	BROCHIS(SIB)/HARTOG
46	Hyden	1982	GAMENYA/INIA-66
47	Janz	1989	3Agd3/4*Condor//Cook
48	Kennedy	1998	Veery#5/Hartog
49	Krichauff	1997	[Wariquam*(Kloka*Pitic62)*(Warimek*Halberd)]/3Ag3Aroona
50	Kukri	1999	DRP((FNK58xN10B/Gb55)NAI60)/(TOB-CNO 'S' x TOB8156/CALxBb-CNO)/2/MDN/6*RAC177
51	Lang	2000	QT3765/Sunco
52	Leichhardt	1995	CNT2/4*HARTOG
53	Livingston	2008	SUN-129-A/SUNVALE

54	Longreach_Catalina	2007	VI-184/SILVERSTAR
55	Longreach_Crusader	2008	Sunbrook/H45
56	Longreach_Guardian	2007	VL-709/KRICHAUFF
57	Longreach_Lincoln	2006	96WFHB5568/Octane//Rubric
58	Machete	1985	Mec-3/2*Gabo(RAC177)//Madden
59	Magenta	2007	Carnamah/Tammin-18
60	Mcvey	1999	NING-8331/MN-87029//MN-89068
61	Mitre	2000	Janz/Beulah
62	Molineux	1988	Pitic62/Festiguay//2*Warigal
63	Oxley	1974	Pen62/4*Gabo56//TPPN (WW80)/2*WW15
64	Pelsart	1993	Potam 70/4*Cook
65	Perouse	1989	3-AG-14/4*CONDOR,AUS//OXLEY/3*COOK
66	Petrel	1996	M2293/Ford(M2293= WW15/M1238-2//Kite/3/WW15)
67	Petrie	2000	Vasco/Batavia
68	QAL2000	2000	Tincurrin*4/3/Lance*2//Condor*4/3ag14/14/Tatiara*3//Cook*5/VPM1
69	Rees	2003	Hartog*3/Quarrion
70	Sentinel	2005	product of French spring wheat breeding program
71	Seri82	1982	KAVKAZ/(SIB)BUHO//KALYANSONA/BLUEBIRD
72	Strzelecki	2000	Vicam/4*Batavia
73	Sunbri	1990	Cook*2/VPM1//3*Cook
74	Sunbrook	1996	Hartog*2/Suneca
75	Sunco	1986	SUN9E*4/3Ag14//WW15/3/Cook
76	Sunelg	1984	DARF*4/3-AG-14
77	Sunlin	1996	sunelg*2//suneca*3/VPm1
78	SunStar	1983	CONDOR,AUS/4/2*WW-15/3/STEINWEDEL/YAROSLAV-EMMER//LA-PREVISION
79	Sunvale	1996	Cook *2/VPM 1//3*Cook
80	Sunzell	2007	Sunbrook*3/Sunstate
81	Tammarin_Rock	2005	Skorospelka.4*Lance:3*Bodallin(81Y:970)/Kalannie

82	Tammin	1995	Bodallin//(74W07-47)Eradu sib./ XBVT223' x '(75W04-258) Atlas66.2/Madden
83	Tasman	1993	TORRES/3/GABOTO/SIETE-CERROS-66//BLUEBIRD/CIANO-67
84	Tincurrin	1977	Gluclub/3/Chile1B//Insignia/Falcon
85	Ventura	2004	Sunvale / Rowan
86	Verde	1995	MN-7663/SBY-354-A
87	Vulcan	1985	Condor/Pitic62//Condor sib
88	Westonia	1997	'CO1190-203' x '84W127-501'
89	Wyalkatchem	2001	MACHETE/84W129-504
90	Yenda	2007	Bindawarra/Bowie//3Ag3/Wyuna
91	Yitpi	1999	C8MMCC8HMM*Frame
92	Zippy	2008	Klassic/Kalannie//Pfau/Reeves

---

**Table S2** Mean content of free amino acids in mg/kg of grains in 92 wheat cultivars released for commercial cultivation between 1960 and 2008.

Cultivar	Histidine	Asparagine	Serine	Glutamine	Arginine	Glycine	Aspartic acid	Glutamic acid	Threonine	Alanine	Proline	Lysine	Tyrosine	Methionine	Valine	Isoleucine	Leucine	Phenylalanine	Tryptophan	Total FA
AGT_Young	11.30	344.80	30.95	57.55	206.15	47.10	373.40	114.70	16.15	112.40	20.40	33.30	20.30	6.40	24.50	19.05	24.15	21.20	318.20	180.00
Alsen	10.95	458.45	31.65	98.10	319.40	51.50	186.85	125.75	16.25	114.10	23.80	33.80	24.40	9.60	24.35	13.65	19.00	17.65	367.90	194.70
Annuello	14.35	573.30	28.70	166.70	267.10	50.35	328.30	180.30	18.90	153.25	40.85	38.20	19.95	5.60	29.05	18.65	24.35	22.70	375.75	235.630
Arnhem	27.70	430.50	20.05	81.35	256.30	44.00	420.35	109.80	15.40	132.55	21.25	37.35	17.65	4.05	23.25	15.80	22.75	19.95	456.00	215.600
Arriano	19.05	326.50	22.20	33.10	261.30	50.95	259.35	98.50	14.55	110.25	23.30	37.45	16.55	4.70	25.70	16.10	26.30	23.65	398.10	176.770
Axe	10.05	454.05	20.10	64.05	483.25	51.40	372.75	138.90	15.15	131.75	22.80	37.80	20.15	7.80	25.40	23.10	21.85	20.05	228.90	214.950
Banks	14.90	501.15	24.55	75.30	171.95	54.05	298.15	158.50	17.80	102.35	21.00	32.30	26.65	9.05	30.55	28.85	26.10	26.20	309.40	192.880
Barham	12.75	465.35	40.70	56.90	329.30	61.45	303.70	165.40	16.75	142.35	26.60	37.35	45.45	30.25	24.70	15.50	21.30	38.85	320.85	215.550
Batavia	27.70	249.25	35.90	49.60	167.50	51.55	130.65	150.75	19.10	137.55	28.90	35.80	24.80	9.00	33.30	28.85	32.70	26.45	439.80	167.920
Baxter	10.65	329.75	15.30	26.50	164.55	46.05	157.15	93.45	12.55	116.55	20.70	32.25	26.55	4.35	21.80	13.90	21.75	18.65	210.70	134.320

Bola	22.0	150.	30.3	12.4	109.	42.2	121.	71.0	11.9	79.5	16.1	31.7	29.8	28.3	17.9	13.7	20.7	19.0	325.	115
c	0	75	0	0	45	5	15	0	5	0	0	0	0	0	5	5	5	0	15	3.00
Bow	11.6	458.	32.4	68.7	358.	59.8	277.	146.	16.8	131.	23.2	34.5	50.2	19.2	23.4	15.8	21.5	34.4	334.	211
ie	0	30	5	5	75	0	90	70	5	80	5	0	0	5	0	5	0	0	65	9.90
Broo	6.75	225.	16.9	12.2	108.	39.3	203.	89.2	12.7	117.	17.5	27.1	18.5	3.95	20.5	15.4	20.4	19.0	222.	119
kton		30	0	0	35	0	05	5	5	20	5	0	5		0	5	0	5	75	6.50
Bull	10.5	365.	27.5	22.7	306.	46.0	351.	111.	15.5	117.	23.9	36.5	29.9	7.10	26.2	30.3	23.8	20.6	299.	187
arin		75	5	0	65	5	25	80	5	00	5	0	5		0	0	5	0	75	3.20
g	9.65	142.	14.0	12.8	158.	32.9	70.2	72.2	11.0	88.4	16.9	34.8	33.2	4.50	17.4	12.9	22.0	18.6	194.	967.
Cad		85	0	0	85	5	0	5	5	5	0	0	0		5	5	0	0	10	30
oux	10.9	199.	13.7	12.3	205.	34.5	115.	79.8	11.3	93.3	16.1	31.8	23.9	3.65	18.0	14.4	19.8	17.1	191.	111
Cali		5	15	0	0	80	0	95	0	5	0	0	0		5	5	5	0	20	3.00
ngiri	7.40	223.	15.8	10.4	135.	37.3	185.	54.4	11.5	103.	15.2	28.0	29.0	5.20	19.1	12.0	18.1	16.5	140.	106
Carn		40	5	5	00	0	50	0	0	45	5	5	5		0	0	5	5	75	8.50
ama	10.7	445.	22.5	96.7	203.	42.2	358.	133.	13.9	97.6	16.6	30.5	25.8	14.0	24.0	15.8	18.8	18.7	324.	191
h		0	25	0	0	80	5	70	10	5	5	5	5		0	0	0	0	0	40
Casc	22.5	672.	30.4	154.	247.	54.9	440.	165.	20.1	130.	40.1	40.3	27.9	7.15	29.9	20.8	30.4	26.9	348.	251
ades		0	55	0	05	80	0	90	95	5	10	5	5		5	5	5	5	5	20
Char	24.3	246.	14.8	16.4	154.	40.9	242.	72.7	11.9	90.3	18.2	28.3	16.3	4.50	21.8	17.9	20.6	17.8	449.	151
a		5	40	5	0	75	0	55	0	5	5	5	0		5	5	0	5	25	0.10
Coo	14.6	538.	22.8	101.	414.	55.7	299.	151.	15.6	162.	38.4	54.5	47.3	9.05	26.4	14.5	22.1	20.1	418.	242
ck		5	45	5	80	10	5	25	50	0	80	0	0		5	5	5	5	00	7.40
Corr	8.55	208.	15.0	12.9	121.	41.3	140.	67.2	11.1	84.5	15.2	26.1	19.9	3.20	20.1	18.3	20.1	18.0	337.	118
ell		55	5	0	40	5	25	5	5	5	0	0	0		5	5	0	0	30	9.40
Cun	8.55	208.	15.0	12.9	121.	41.3	140.	67.2	11.1	84.5	15.2	26.1	19.9	3.20	20.1	18.3	20.1	18.0	337.	118
ning		55	5	0	40	5	25	5	5	5	0	0	0		5	5	0	0	30	9.40
ham																				

Dagger	12.55	242.95	13.10	12.10	322.25	41.25	165.70	80.50	11.40	143.75	17.45	39.85	59.85	4.25	19.85	12.15	18.55	18.40	332.75	156.860
Dollard	11.60	308.75	18.65	27.50	308.20	49.35	314.30	98.15	14.25	124.65	20.90	38.50	28.70	5.35	30.65	26.90	22.90	23.65	400.75	187.360
Drysdale	15.55	481.35	28.30	274.65	428.05	49.75	326.10	175.65	19.40	140.30	26.05	43.00	19.00	4.50	29.95	16.80	22.95	24.05	403.50	252.910
EGA_2248	15.90	449.05	36.00	260.30	312.10	59.50	377.65	211.00	21.35	145.95	51.25	36.90	27.55	10.85	34.25	20.15	24.60	20.60	223.65	233.850
EGA_Bonnie_Rock	16.45	633.90	47.40	291.20	389.65	69.10	490.90	262.20	24.65	158.90	33.10	42.70	38.55	29.80	38.50	22.90	27.80	26.85	386.10	303.060
EGA_Burke	9.75	181.90	12.70	10.15	228.65	37.40	212.45	56.90	10.85	101.40	14.45	31.30	33.30	3.60	19.60	16.65	19.50	18.30	345.10	136.400
EGA_Gregory	12.55	233.25	11.30	9.10	126.90	33.10	150.05	66.45	10.45	94.35	16.10	26.15	21.95	3.50	17.05	14.00	16.75	15.85	346.65	122.560
EGA_Hume	10.10	578.65	20.25	113.55	182.50	43.55	287.45	153.25	18.00	103.75	21.90	30.00	29.15	6.20	22.70	15.45	19.90	18.90	356.30	203.150
EGA_Jitaring	8.70	147.10	15.60	12.65	185.15	31.35	133.65	102.25	9.85	102.95	17.90	26.15	17.45	3.30	17.85	12.70	18.55	16.80	378.80	125.870

EGA _Kid man	12.2 5	474. 60	24.3 0	160. 35	284. 05	48.1 0	245. 10	153. 70	16.7 0	116. 25	30.1 5	37.3 0	34.6 0	6.15	26.2 0	17.8 5	25.5 0	19.2 5	327. 25	205 9.60
EGA _We ntw orth	11.9 0	294. 70	15.7 0	15.3 5	130. 80	41.4 5	272. 40	93.0 0	12.5 5	94.9 0	21.1 5	31.0 5	30.6 5	4.80	22.9 0	19.4 5	22.8 0	21.3 0	356. 25	151 3.20
EGA _Wy lie	22.0 0	178. 00	14.2 0	10.9 0	95.6 0	35.3 5	183. 60	57.3 0	11.0 0	95.3 5	16.5 5	25.4 0	20.7 5	3.85	19.8 5	14.4 5	20.5 5	17.9 0	212. 90	105 5.60
Ellis on	19.0 0	174. 35	11.5 0	10.0 0	163. 05	35.8 0	143. 95	66.8 5	9.85	97.4 5	16.0 0	32.9 0	31.9 5	3.70	17.8 5	13.8 5	18.9 0	16.9 0	433. 70	131 7.40
Erad u	9.65	226. 00	12.5 0	23.5 0	205. 70	41.9 5	185. 60	69.5 5	10.8 5	100. 65	18.4 0	31.2 0	25.1 5	3.90	21.2 0	16.7 0	20.7 5	19.5 5	439. 85	148 2.70
Espa da	10.9 0	465. 65	17.0 0	51.9 0	280. 45	41.8 5	447. 45	141. 65	12.9 0	145. 60	22.2 5	34.5 5	25.1 0	3.70	20.1 0	10.6 0	18.6 5	23.3 0	351. 45	212 5.20
Exca libur	12.2 5	415. 15	23.3 5	72.5 0	301. 05	50.5 0	304. 90	133. 60	15.3 0	130. 50	22.5 0	30.2 5	24.2 0	5.20	27.5 0	26.5 5	21.2 5	18.6 5	301. 45	193 6.70
Gam enya	19.5 5	421. 10	18.7 0	76.1 0	320. 80	53.1 0	256. 00	141. 50	14.7 0	118. 65	29.3 0	38.7 0	16.8 0	6.85	22.8 5	16.6 5	23.8 5	22.5 0	171. 10	178 8.90
Giles	14.0 0	217. 95	12.8 5	12.2 0	195. 55	41.3 5	142. 85	80.1 5	11.0 5	91.3 0	16.4 5	30.6 5	15.0 5	5.25	16.4 5	14.7 0	17.6 5	16.9 0	300. 60	125 2.90
Glad ius	15.9 5	734. 05	30.2 5	199. 25	287. 15	56.1 5	468. 90	252. 00	20.7 0	155. 85	42.1 0	37.7 5	15.3 0	6.20	32.4 0	16.3 0	25.5 0	22.1 5	341. 90	275 9.80
H45	12.9 0	611. 90	24.4 5	172. 95	292. 65	52.8 0	439. 70	167. 10	20.3 5	134. 30	23.4 0	37.8 0	17.6 0	5.20	23.3 0	13.1 0	22.8 0	19.9 5	327. 65	241 9.90
Halb erd	15.8 5	541. 25	19.9 0	122. 70	286. 25	55.0 5	285. 85	164. 15	17.7 5	157. 25	27.1 5	42.6 5	50.1 5	7.05	27.3 0	12.6 0	24.8 0	22.7 5	366. 15	224 6.60



Hartog	13.40	372.95	24.50	64.35	349.70	51.90	364.25	123.95	17.65	146.10	29.50	44.85	43.45	5.85	36.50	30.25	25.50	22.65	333.50	210.80
Houtmann	15.60	313.95	26.55	140.30	324.60	50.85	192.45	108.95	16.65	128.85	22.55	41.40	38.10	6.50	25.55	19.50	22.65	20.30	313.45	182.870
Hyden	20.80	171.45	16.30	33.00	158.65	33.95	109.70	65.10	10.30	85.85	19.20	30.20	18.10	4.30	17.85	14.15	18.40	16.35	271.55	111.530
Janz	13.40	397.35	15.10	26.00	165.00	41.80	220.55	88.85	12.80	91.65	21.15	30.00	21.40	4.05	19.20	13.60	20.90	19.70	324.90	154.730
Kennedy	13.30	359.90	24.75	43.65	241.60	51.50	338.30	105.30	19.10	155.65	26.25	38.70	34.85	4.95	43.95	34.40	29.55	29.75	516.80	211.220
Krichauff	11.70	276.25	30.60	22.05	250.20	51.05	191.45	79.95	14.10	107.20	17.15	33.20	25.40	27.50	20.20	14.75	18.65	22.85	350.15	156.450
Kukri	9.85	341.15	16.30	21.95	334.25	47.70	218.70	103.70	12.65	99.35	21.10	33.10	16.35	4.90	22.20	20.75	20.65	18.75	183.70	154.720
Lang	15.20	233.45	15.10	12.25	118.85	41.45	299.60	72.95	11.40	87.00	15.60	23.05	20.35	2.70	20.65	16.55	20.10	18.70	359.90	140.490
Leichhardt	14.30	440.90	33.95	206.90	367.50	51.30	334.10	158.55	22.50	149.55	23.85	54.55	45.00	6.45	34.15	26.70	28.35	23.95	314.10	233.670
Livinston	16.90	504.10	28.40	164.65	280.95	52.50	339.10	142.60	20.05	120.30	27.55	43.45	27.20	5.80	31.40	21.85	28.50	22.20	218.50	209.600
Longreach_C	14.55	495.80	57.30	86.15	287.00	63.05	300.65	122.15	18.45	98.10	27.30	44.85	21.00	44.25	24.65	15.20	24.00	21.40	310.15	207.620

atali																					
na																					
Long																					
reac																					
h_Cr	9.90	233.	13.3	12.2	196.	39.1	245.	81.0	12.1	98.3	17.4	31.3	27.3	4.15	23.2	18.5	20.4	17.8	354.	145	
usad		30	0	0	75	5	80	5	0	5	5	5	0		5	0	5	5	45	6.60	
er																					
Long																					
reac																					
h_G	11.7	392.	23.1	103.	254.	45.1	219.	132.	15.5	103.	22.3	31.3	19.4	4.35	22.7	16.6	19.9	19.0	384.	184	
uard	0	40	5	25	55	5	85	20	5	25	0	0	0		0	5	5	0	65	1.10	
ian																					
Long																					
reac																					
h_Li	15.4	730.	30.9	388.	326.	55.7	490.	302.	22.1	146.	29.6	42.5	17.9	7.65	29.9	14.7	25.3	22.7	457.	315	
ncol	5	75	0	65	55	0	45	40	5	40	0	5	5		5	5	5	0	15	7.10	
n																					
Mac	14.8	394.	17.4	16.3	438.	56.5	248.	110.	14.7	107.	26.4	49.4	36.1	10.7	25.6	28.4	27.8	22.3	137.	178	
hete	5	90	0	0	30	0	30	95	5	35	0	5	5	0	5	0	5	0	80	4.30	
Mag																					
enta	9.60	212.	13.5	12.4	110.	32.9	123.	100.	10.9	95.6	18.8	29.9	22.8	4.60	20.6	10.8	22.3	19.8	300.	117	
		50	0	0	25	5	80	15	0	0	0	0	5		5	0	0	0	15	1.60	
Mcv																					
ey	7.45	215.	16.2	16.2	100.	38.1	174.	65.3	11.9	97.6	19.1	26.8	25.2	3.70	20.3	14.0	19.3	18.9	219.	110	
		35	0	5	90	0	10	5	0	0	0	5	5		5	5	0	0	10	9.90	
Mitr																					
e	10.9	223.	11.5	17.1	148.	37.9	122.	64.8	9.60	84.4	16.0	25.1	28.6	3.80	15.4	12.0	15.5	16.5	408.	127	
	0	35	5	0	80	5	50	5		0	5	0	0		5	0	0	5	20	2.30	
Moli																					
neu	20.3	169.	38.2	11.3	168.	46.9	101.	80.3	15.3	108.	17.1	30.9	19.0	3.60	21.2	13.7	21.2	19.3	443.	134	
x	5	50	5	0	45	5	35	5	5	25	5	0	0		5	0	0	5	80	9.90	

Oxley	13.7	189.0	13.8	12.0	90.8	33.7	101.0	76.0	10.1	80.3	14.4	27.0	28.2	3.50	19.0	14.4	20.6	17.9	278.0	104.0
Pelshart	17.1	382.0	19.0	50.5	215.0	48.2	262.0	92.5	13.8	97.5	23.3	28.1	15.2	3.80	20.7	15.0	20.4	17.3	329.0	167.0
Pero	16.6	186.0	14.5	11.5	145.0	39.2	99.4	62.3	10.7	75.3	16.7	26.7	14.8	4.55	17.7	14.7	19.7	17.3	371.0	116.0
Petr	16.0	569.0	27.8	182.0	338.0	59.1	255.0	122.0	18.5	100.0	24.2	41.5	20.1	11.4	26.9	14.6	20.7	19.9	279.0	214.0
Petrie	12.1	183.0	13.7	10.0	107.0	33.6	132.0	87.3	11.6	92.4	18.5	31.8	32.1	3.95	19.3	15.7	21.8	19.4	285.0	113.0
QAL2000	7.50	309.45	31.4	17.3	270.00	45.8	262.05	118.60	13.2	107.95	23.1	29.1	15.5	21.3	19.7	14.9	18.2	19.2	265.30	160.90
Rees	19.6	279.0	25.4	65.9	483.0	47.6	228.0	91.4	17.2	121.0	21.1	55.2	54.0	7.50	31.3	27.4	31.2	27.0	341.0	197.0
Sentinel	34.8	210.0	15.2	14.7	233.0	40.4	196.0	64.4	12.6	100.0	18.6	36.1	21.0	4.90	24.1	16.1	24.8	24.1	430.0	152.0
Seri82	15.3	257.0	20.8	39.7	158.0	44.3	204.0	59.2	14.0	115.0	40.1	31.0	30.4	5.60	25.8	17.7	26.6	26.6	336.0	146.0
Strzelecki	11.2	147.5	16.0	11.4	111.0	28.2	74.3	105.0	11.3	74.3	19.0	26.7	17.0	3.65	18.1	12.2	21.4	20.2	505.0	123.0
Sunbri	10.1	241.0	17.0	13.7	229.0	43.0	230.0	80.5	12.3	109.0	18.6	31.6	17.7	3.60	22.3	19.5	22.2	21.5	378.0	152.0
Sunbrook	16.4	138.0	28.6	55.2	179.0	40.8	127.0	146.0	16.1	128.0	23.1	38.0	29.6	8.25	31.0	28.7	29.4	25.2	499.0	159.0

Sunc	22.8	341.	16.5	27.6	176.	45.9	259.	81.7	12.4	96.3	18.6	26.5	15.7	3.10	20.2	14.7	19.8	17.7	407.	162
o	0	20	5	0	95	5	80	0	5	5	5	5	0		0	0	0	0	85	5.70
Sun	12.6	451.	17.1	128.	200.	47.0	259.	154.	16.6	104.	23.4	35.0	26.6	5.75	23.5	13.6	23.2	21.2	316.	188
elg	5	45	0	45	30	0	90	30	5	95	5	0	0		0	5	5	0	50	1.70
Sunli	11.3	217.	14.4	22.7	156.	41.4	124.	87.5	10.3	102.	15.8	27.4	15.5	3.90	17.0	10.6	16.3	17.4	321.	123
n	0	30	5	0	05	5	85	0	5	85	5	5	0		0	0	0	0	50	4.40
SunS	9.20	241.	15.6	17.8	104.	42.9	118.	92.4	11.3	88.1	13.8	24.5	12.9	4.15	20.2	12.5	18.4	16.7	298.	116
tar		05	5	0	60	0	40	0	5	0	5	5	5		5	0	5	0	15	3.10
Sunv	28.1	185.	16.7	12.3	149.	37.8	144.	65.3	11.2	86.1	16.2	27.0	22.3	5.00	19.5	15.3	21.9	18.8	370.	125
ale	5	00	5	5	95	5	95	5	5	0	5	0	0		0	0	5	5	95	4.80
Sunz	9.45	162.	13.7	7.95	265.	38.6	103.	62.9	10.3	86.6	16.7	37.4	12.9	2.70	21.1	15.3	19.9	16.9	318.	122
ell		80	5		20	5	70	0	0	0	5	0	0		0	5	5	5	55	2.90
Tam																				
mari	11.5	586.	19.6	140.	201.	48.4	432.	177.	16.6	123.	18.6	33.9	16.8	4.75	24.4	11.8	21.6	19.8	241.	215
n_R	0	05	5	70	30	0	65	50	0	75	0	0	0		0	5	5	0	05	0.80
ock																				
Tam	10.4	215.	14.4	11.2	221.	40.5	161.	76.1	11.2	112.	17.4	31.5	26.9	3.70	19.1	16.1	21.0	19.2	186.	121
min	5	50	0	0	00	0	35	5	5	70	5	5	5		5	5	5	5	70	6.30
Tas	13.9	688.	31.6	405.	235.	49.5	380.	241.	20.8	136.	28.7	40.2	23.7	8.70	30.6	17.7	28.2	25.4	365.	277
man	0	05	5	55	25	5	75	55	5	60	0	5	5		0	0	0	0	75	2.70
Tinc	9.70	496.	18.8	70.8	211.	45.9	337.	133.	14.5	111.	21.3	28.2	17.8	5.90	21.2	14.8	21.6	17.4	184.	178
urrin		90	0	0	10	0	20	35	0	00	5	5	5		5	5	0	0	20	1.90
Vent	11.3	161.	13.9	14.5	249.	35.7	179.	63.7	10.9	91.0	16.7	32.0	42.5	3.90	21.7	18.8	19.7	18.3	367.	137
ura	0	15	0	5	90	5	60	5	0	0	5	0	0		5	0	5	0	65	3.20
Verd	7.35	338.	19.3	49.8	178.	40.8	185.	75.2	12.9	103.	13.3	27.2	19.9	7.45	18.9	11.4	18.4	16.2	284.	142
e		40	5	5	05	0	05	5	5	00	0	5	5		0	0	0	0	35	7.20
Vulc	11.1	467.	20.1	58.8	130.	45.9	355.	147.	15.1	97.4	16.5	31.6	36.7	6.05	22.8	14.2	22.7	19.7	163.	168
an	0	90	0	5	90	0	55	95	0	0	5	0	5		5	5	5	0	10	4.20

Wes toni a	12.3 0	712. 55	19.7 0	106. 00	334. 40	48.4 5	488. 10	150. 25	14.9 5	108. 00	22.6 5	37.6 0	21.4 0	3.45	21.7 5	10.6 0	20.4 5	18.1 5	370. 45	252 1.20
Wya lkatc hem	33.4 0	471. 85	14.8 5	34.4 5	368. 05	58.2 5	297. 15	119. 40	13.9 0	122. 70	29.4 0	38.8 0	31.3 0	4.55	22.1 0	16.1 5	20.5 0	18.2 0	383. 85	209 8.70
Yen da	7.70	144. 25	12.5 5	10.8 0	107. 05	29.7 0	125. 20	132. 35	10.2 5	90.4 0	14.4 0	27.8 0	22.5 0	4.40	17.9 5	10.6 0	21.5 0	18.8 0	396. 40	120 4.90
Yitpi	16.7 5	480. 45	20.1 5	47.5 0	317. 65	53.7 5	248. 25	118. 00	15.4 5	141. 00	30.0 5	44.9 0	43.1 5	6.80	25.0 0	13.1 5	25.6 5	23.2 5	298. 95	196 9.90
Zipp y	13.0 0	216. 50	19.1 5	17.0 0	127. 20	44.5 0	171. 05	105. 70	13.6 5	106. 65	20.1 5	35.7 5	21.8 0	5.60	22.1 0	15.6 5	27.2 5	23.5 5	270. 95	127 7.10