

Cross Weight Average: A semi-quantitative approach to maximizing genetic opportunity in seed selection

Growers- when it comes to seed selection, I've long been an advocate that maximum genetic potential comes from seeds that have the largest ancestral weights. This is a fundamental aspect of any breeding process...desirable offspring characteristics must come from desirable parentage. As such, I've created a simple, crude calculation that ranks seeds based on their "3-way cross weight average (CWA)" which is an average of 3 data inputs: host parent weight, female parent weight, and male parent weight.

By no means is this tool definitive. So many uncontrollable factors, environmental and genetic, will influence the outcomes in a pumpkin patch. However, in the absence of any other quantitative means to assess potential, whether it be genetic or environment, the CWA is a starting point.

This method is similar to fantasy sports. If you want to win, you pick the players with the greatest potential to earn points, based on their track record of historical performance. In the tables below, you'll find the top 20 GPC fruit for 2016 and 2017, ranked by highest CWA. These lists are not all inclusive, as there are fruit outside the top 20 that rank higher than some entries in the top 20. The tables are simply a snapshot of each year's heaviest pumpkins.

2017 Cross Weight Average

GPC Rank	Seed	Grower	Female	Male	CWA	CWA Rank
4	2,150.0	Skinner, Todd & Donna	2624	2624	2,466	1
2	2,269.4	Paton, Ian & Stuart	2624.6	1949	2,281	2
1	2,363.0	Holland, Joel	2145.5	2261.5	2,257	3
8	2,048.1	Paton, Ian and Stuart	1949	2624	2,207	4
17	1,974.0	McConkie, Matthew	2261.5	2261.5	2,166	5
3	2,228.9	Willemijns, Mathias	2095	2145	2,156	6
10	2,031.6	Mendi, Ruben	2145.5	2145.5	2,108	7
14	2,002.0	Tobeck, Cindy	2145.5	2145.5	2,098	8
18	1,971.5	Barlow, John & Merrie	2145	2145	2,087	9
11	2,016.6	Boonen, Herman	2145.5	2095	2,086	10
6	2,095.0	Brandt, Josiah	2145	1965	2,068	11
20	1,970.5	Sperry, Steven	2261	1961	2,064	12
16	1,991.5	VanderWielen, Pete	2145	2004	2,047	13
9	2,043.5	Clementz, Mark	2145	1947.5	2,045	14
18	1,971.5	Wolf, Andy	2230	1810	2,004	15
15	2,000.0	Pingrey, Russ	1937	2066	2,001	16
7	2,090.5	Stelts, Dave & Carol	2,145	1,749	1,995	17
13	2,003.0	Haist, Karl	2145	1781	1,976	18
5	2,112.0	Skinner, Todd & Donna	1810	1810	1,911	19
12	2,003.5	Lancaster, Woodrow	2009	1713	1,909	20

**2016 Cross Weight
Average**

GPC Rank	Seed	Grower	Female	Male	CWA	CWA Rank
1	2,624.60	Wille mijns, Mathias	2145	1872	2,214	1
18	1,944.00	Conolly, Steve	2230	2145	2,106	2
6	2,075.50	Connolly, Steve	1961	2230.5	2,089	3
17	1,944.50	Pugh, Russ	2145	2109	2,066	4
12	2,004.00	Vander Wielen, Pete	2145	2017	2,055	5
8	2,063.50	Wille mijns, Mathias	1872	2145	2,027	6
2	2,261.00	Wallace, Dick	2009	1790	2,020	7
EXH	2,157.00	Paton, Ian & Stuart	2096	1781	2,011	8
3	2,252.30	Paton, Ian & Stuart	1975	1781	2,003	9
7	2,066.00	Geddes, Steve	2145	1727.5	1,980	10
13	1,986.40	Wuersching, Matthias	1781	2096	1,954	11
EXH	1,949.50	Paton, Ian & Stuart	1781	2096	1,942	12
10	2,048.10	Wille mijns, Mathias	1861	1872	1,927	13
14	1,969.00	Haist, Karl	1985	1725	1,893	14
5	2,095.50	Wille mijns, Mathias	1684	1872	1,884	15
15	1,964.50	Haist, Karl	1806	1725	1,832	16
9	2,058.50	Rose, Jerry	1585	1730	1,791	17
11	2,047.00	Sippel, Dereck	1338	1756	1,714	18
16	1,948.50	Werner, Quinn	1585.5	1461	1,665	19
4	2,106.00	Schmit, Mike	1385.5	Open	?	20