

Genomic sons of genomic sons speed up rate of genetic progress

Young sires set fast pace

Former Gold Cup finalist and respected Devon-based Holstein breeder Willy Ley has been captivated by the latest genetically-tested and daughter-proven lists, following the December bull proof run, and the growing gap between the two.

text Rachael Porter

What struck Willy Ley first when he saw the December bull rankings was just how wide the gap between 'genomic' and 'proven' sires has become. "And even more mind boggling is that fact that it'll probably get much wider and I do wonder how far it can go," he says.

For him, and many other breeders and producers, the genomic young sire list is where the excitement lies when it comes to Holstein genetics, and the December index run, published by DairyCo, certainly demonstrates the fast pace of change.

The generation interval for dairy cows has been slashed with the advent of genomics and no less than eight of the top 10 sires ranked on Profitable Lifetime Index (PLI) were unavailable at the previous index run, which was just four months ago. "Overall, when you compare the two rankings, the genetically-tested sires seem to have exploded. And what really strikes this home for me is that fact that the number-one sire on the proven list would sit in just 30th place in the genomic rankings, such is the rate of progress."

Shining in the top spot in the genomic rankings is the brand-new Canadian-

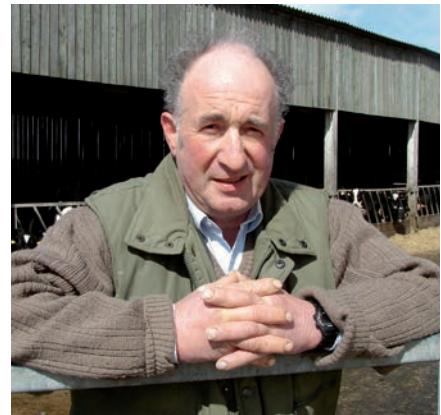
bred Sandy-Valley-I Penmanship, whose sire is also a young genomic bull – as are the sires of nine of the top 10 bulls. Penmanship smashes the £700 PLI barrier at £745: "Not long after £600 seemed a remarkable figure," says Willy, who, not surprisingly, is keen to get his hands on some straws for his AI flask. "But this sire is so new there's not even a price for his semen yet. I'll have to be patient!"

Like the number-two bull on the list, he is sired by Mr Lookout P Enforcer (Facebook x Shottle), but Penmanship is out of a Numero Uno dam. Even his maternal grandsire, Numero Uno himself, has only gained a daughter proof for the first time this month, further demonstrating how quickly genetic progress can be made.

Impressive figures

Penmanship stands out for his high daughter Lifespan Index, which is +0.7. "I should very much like to use him on my herd, so long as he's reasonably priced. I can't see anything in his figures that I don't like."

Second-ranking PES009 Boardshop (Enforcer x Bookem) ranks close to the number-one sire in most respects, and weighs in with a PLI of £682. "Again, his



Willy Ley: "The genomic young sire list gets more exciting with every proof run"

figures are impressive and he looks to be a pretty sound bull," says Willy.

He's particularly excited about the number-three ranking sire, a son of Seagull-Bay Platinum out of a Shamrock dam in the shape of US-bred De-Su Penley. "He's brand new and I've already bought some of his semen. It was his high type merit that caught my eye, as well as his remarkable ability to reduce cell counts (SCC Index -32) and his level fat and protein," he says, adding that his PLI, at £673, is also impressive.

"I've also had a look at his linear scores and he offers pretty good udders too. There's quite a lot to get excited about." Former number-three bull Mr Miguel (Cashcoin x Robust) holds firm with an improved PLI of £672, while equal ranking in fourth position, De-Su Firewall is another newcomer. Sired by De-Su Alta Jackman and out of another Shamrock dam, he features high components and low cell counts.

The former number-one bull, MG Inseme Powerplay, ranks sixth on the list and

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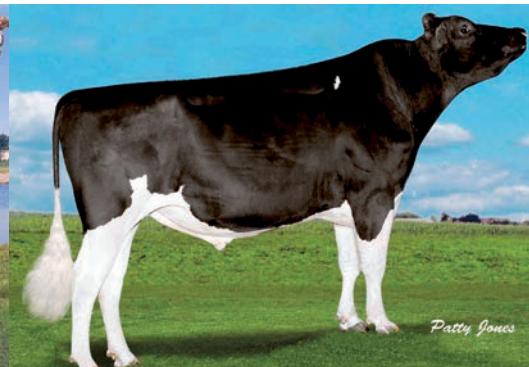
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De-Su 521 Bookem



John Ebbsen

Gran-J Oman McCormick



Patty Jones

name	sire	mat. grandsire	supplier	production						functional traits				conformation				
				rel.	milk	kg fat	kg protein	% fat	% protein	£PLI	maint	SCC	lifespan	fertility ind.	dCE	F&L	udder	TM
Prehen Omen	O Man	Goldwyn	Bullsemen.com/AIS	91	+463	+27.7	+26.2	+0.11	+0.13	605	13	-11	0.3	6.4	1.8	1.36	1.21	1.46
Kings-Ransom Erdman	Planet	Ramos	Bullsemen.com	85	+473	+21.9	+14.4	+0.04	-0.01	587	-14	-15	0.6	11.4	1.4	1.39	1.03	1.28
VH Tirsvald Goldwyn Grafit	Goldwyn	O Man	Viking/Sterling	81	+513	+29.6	+22.7	+0.11	+0.07	587	16	-16	0.2	8.7	1.2	2.26	1.04	1.73
Hammer-Creek O Man Kody	O Man	Goldwyn	Cogent	82	+565	+16.4	+22.1	-0.07	+0.05	563	12	-8	0.5	11.9	0.8	0.75	1.96	1.93
Ladys-Manor Rd Gafeeti	Freddy	Goldwyn	Cogent	83	+267	+24.6	+11.5	+0.17	+0.04	558	1	-15	0.4	7.2	0.5	2.60	3.03	3.42
De-Su Freddie Denim	Freddy	Wizard	Bullsemen.com	83	+280	+20.1	+13.4	+0.11	+0.05	543	25	-20	0.5	16.5	0.8	0.84	0.74	1.09
Gen-I-Beq Lavaman	Man-O-Man	Goldwyn	Semex	88	+215	+12.5	+18.8	+0.05	+0.15	543	0	-6	0.1	9.7	2.7	2.42	1.43	1.88
Laurelhill Classic	O Man	Laudan	Genus	95	+324	+11.9	+16.8	-0.01	+0.08	542	16	-18	0.5	14.8	1.7	0.18	1.22	1.11
Ned-El Man-O-Man Boyboy	Man-O-Man	Ramos	Bullsemen.com	83	+143	+3.6	+7.4	-0.03	+0.03	539	0	-15	0.5	17.2	2.3	2.13	1.96	2.33
De-Su 521 Bookem	Planet	Ramos	Cogent	91	+735	+18.6	+23.8	-0.12	+0.00	537	2	-16	0.4	2.1	1.3	2.49	2.46	2.78
De-Su Alta Melhor	Shot Al	O Man	Alta Genetics	79	+307	+22.9	+14.8	+0.13	+0.06	529	26	-19	0.5	5.5	1.4	2.63	2.43	3.03
Gran-J Oman McCormick	O Man	Durham	Genus	99	-93	+18.1	+4.3	+0.28	+0.09	527	4	-12	0.3	17.5	0.9	1.76	1.25	1.75
D Mason	Mascol	O Man	Geno UK	80	+410	+22.2	+16.9	+0.07	+0.04	523	-2	-21	0.4	6.1	1.5	1.92	0.23	1.00
Co-Op Cassino Yuengling	Cassino	Boliver	Bullsemen.com	83	+232	-4.7	+11.0	-0.17	+0.04	519	-22	-17	0.5	14.2	1.2	1.46	1.29	1.56
Pazzini	Planet	Goldwyn	Bullsemen.com	75	+633	+25.6	+22.7	+0.01	+0.03	519	-12	-16	—	2.4	0.0	2.33	1.41	1.82

genomic sires

Sandy-Valley-I Penmanship	Enforcer	Numer Uno	Semex	67	+587	+28.2	+26.1	+0.06	+0.08	745	23	-17	0.7	10.6	1.2	2.74	2.09	2.64
Pes009 Boardshop	Enforcer	Bookem	Semex	67	+627	+24.2	+24.0	-0.01	+0.04	682	20	-18	0.6	11.2	1.5	2.47	2.12	2.56
De-Su Penley 11839	Platinum	Shamrock	Cogent	67	+685	+27.9	+22.0	+0.01	+0.00	673	22	-32	0.6	6.1	1.3	3.00	3.26	3.69
Mr Miguel	Cashcoin	Robust	Genus	67	+311	+28.2	+15.9	+0.20	+0.07	672	-9	-15	0.5	8.4	2.4	2.19	2.44	2.72
De-Su Firewall	Jackman	Shamrock	Semex	67	+265	+24.5	+13.3	+0.17	+0.06	672	-4	-24	0.6	10.8	1.5	1.72	2.62	2.81

Table 1: Top 15 daughter-proven and top five genomic sires available in the UK, ranked on PLI (source: DairyCo breeding+ and Holstein UK)

stands out for Willy as he's the first on the list with a proven sire:

"He's improved his PLI to £667 and I'm going to take a much closer look at him. I think I should have him in my AI flask."

Indeed, Willy says that whereas genomic sires and proven sires were split 50:50 in his AI flask, today it's more like 75% genomic and 25% proven. "And I have around 15 different sires in the flask at any one time. I am limited on using some bulls as I have used a lot of Planet in the past and avoiding inbreeding can become complicated."

Proven sires

Moving on to daughter-proven sires, there's a UK breeding triumph as Prehen Omen, bred in Northern Ireland, rose to the top of Profitable Lifetime Index (£PLI) rankings. Formerly in number-two position, this O Man son's remarkable transmission of milk solids together with a good volume of milk, gives him the edge over every other daughter-proven bull from both the UK and overseas and earns him a PLI of £605. Willy agrees that he has good type merit, as well as plenty of fat and protein with outstanding health and fertility. "But I've not used him yet – I need to take a closer look at his linear." That said, this bull certainly sums up the revised £PLI, which was reformulated in

the summer to better recognise the wide range of traits that contribute to profitable lifetime milk production.

Omen was bred in County Londonderry by father and son, Robbie and Stuart Smith, whose high health and production herd boasts many of the UK's top genetic merit cows including several of the acclaimed Froukje family from which this bull was bred. Omen's dam, Prehen Goldwyn Froukje EX93, recently completed her fourth 305-day lactation, with high solids and more than 14,000kg. The Planet/Ramos cross, Kings-Ransom Erdman moves up to second position and is also the equal highest lifespan improver of all top 100 bulls. Transmitting excellent daughter fertility, Erdman also has a very good maintenance index at -14, indicating reduced feed costs for maintenance as his daughters are smaller than average. This is summed up in his PLI of £587.

Willy has used quite a lot of the Danish-bred former-number-one sire, VH Tirsvald Goldwyn Grafit, who ranks equal second with a PLI of £587. "I have cows in calf to this sire and I'm looking forward to seeing heifers on the ground and, more importantly, in milk," he says, adding that he'll probably use some Grafit semen in the future.

Maintaining his fourth position with a PLI of £563 is Hammer-Creek O Man Kody, the third O Man/Goldwyn cross

(together with Omen and Grafit). Kody transmits solid fitness with high milk yields.

Early son

Another non-mover and ranking in fifth position with a PLI of £558 is Ladys-Manor RD Gafeeti. This sire features heavily in Willy's breeding programme, as he's used Gafeeti as well as two or three of his sons on his herd.

"I've got a lot of his calves on the ground." This high Type Merit sire (TM 3.42) is an early son of international high-flier, Freddie – a bull who is making his mark on the proven-bull list as a sire of sons, having previously been a familiar name in the genomic young sire listings. Freddie is an O Man son who has never been available in the UK.

Ranking equal sixth is Gen-I-Beq Lavaman, an early son of Man-O-Man, bred in Canada.

Despite only recently graduating to the proven bull line-up, he already has daughters milking in the UK as he was used as a young sire based on his high genomic predictions.

Indeed Willy has seven daughters milking in his herd: "And I'm very pleased with them – they're good heifers. I also have some more calves on the ground." Lavaman's index features a high protein percentage and extreme calving ease. His PLI is £543. |