2021 Meadowood Farms ram lambs for sale

Throughout the milking season, Meadowood ewes are metered bimonthly for the first half of the lactation season, and then monthly through the end of the lactation season; monthly milk samples are taken on all individual ewes April – August. In January we identified the top ewes from whom to save ram lambs for ourselves and for sale. We first identified our top ewes by their most recent Estimated Breeding Values (EBVs), which take into account the production of ***all*** their female relations (close and distant), as well as any influencing management factors, such as lambing date and litter size. We look at their udder conformation. And then as a last consideration, we look at their previous year's production and average pounds milked per days-in-milk, weighted by their age (to be able to compare production measures of all ewes as if they were 4-year-old animals, i.e., at mature production level).

Dairy ram lambs born at Meadowood Farms are identified as soon as they are born – to be held for own breeding, to be offered for sale, or to be wethered at D2 for the meat market. All select dairy ram lambs are removed from their dams immediately after birth, fed colostrum for 18 hours, and then raised to 30 days on milk replacer before being weaned. As the season progresses, we weed out any select ram lambs that show conformational flaws. All ram lambs are checked for correct mouths, basic conformation, descended testicles, and, if they are old enough, freely moving pizzles and testicles.

The Meadowood dairy flock is tested annually for OPP and Johne's, and is free of both. Additionally, during the 2018 milking season, we tested all of our milking ewes for Staph Aureus, culled any positives, and re-tested to assure there were no SA-positive ewes in the flock. There is no foot rot on the farm. The flock is vaccinated annually for the control of CL. All ram lambs sold will have been vaccinated twice (initial at 30-d + booster) for CD/T and CL.

In 2021, all of our ram lambs for sale are sired by Meadowood Rams 2070 or 2075. These two rams were both sired by Lacaune semen from the 2018 importation. We ourselves used 2070 and 2075 extensively in the 2020 breeding season to create many of our own 2021 replacement ewe lambs. In the selection of 2070 & 2075 we were focusing on production and on capturing our remaining high-value Spooner genetics. The paternal grand-dams of the ram lambs for sale (dams of 2070 & 2075) are 1529 and 1638, both of whom have the highest non-Lacaune-semen production that we have ever achieved (see section 5), and you will see that both 1638 and 1529 have extremely high milk yield EBV's. They also have high component EBV's: in 2020 the EBVs fat yield for 1529 and 1638 were +7.36 kg (16.2 lb) and +4.76 kg (10.5 lb), respectively.

In the pages below you will find the following information:

1. Ram lambs available for choice. Includes their lineages, DOB, litter size.
2. Lineages of sires 2070 and 2075
3. Dams' and granddams' EBVs, and notes on how to interpret them
4. Information on how we generate EBVs
5. Dams' and granddams' milk production in the 2020 production season
6. Dams' udders and production notes, with pictures of granddams' udders
7. Grand-sire information on paternal grand-sires (semen) and on rams seen in lineages
8. Pictures of the ram lambs available for sale. Includes mouth, testicles, head, and body, and 30-d weaning wts, & 65-d wts
9. Information on the impact of imported Lacaune semen on F1 yearlings' production at MWD at the end of the 2019 season

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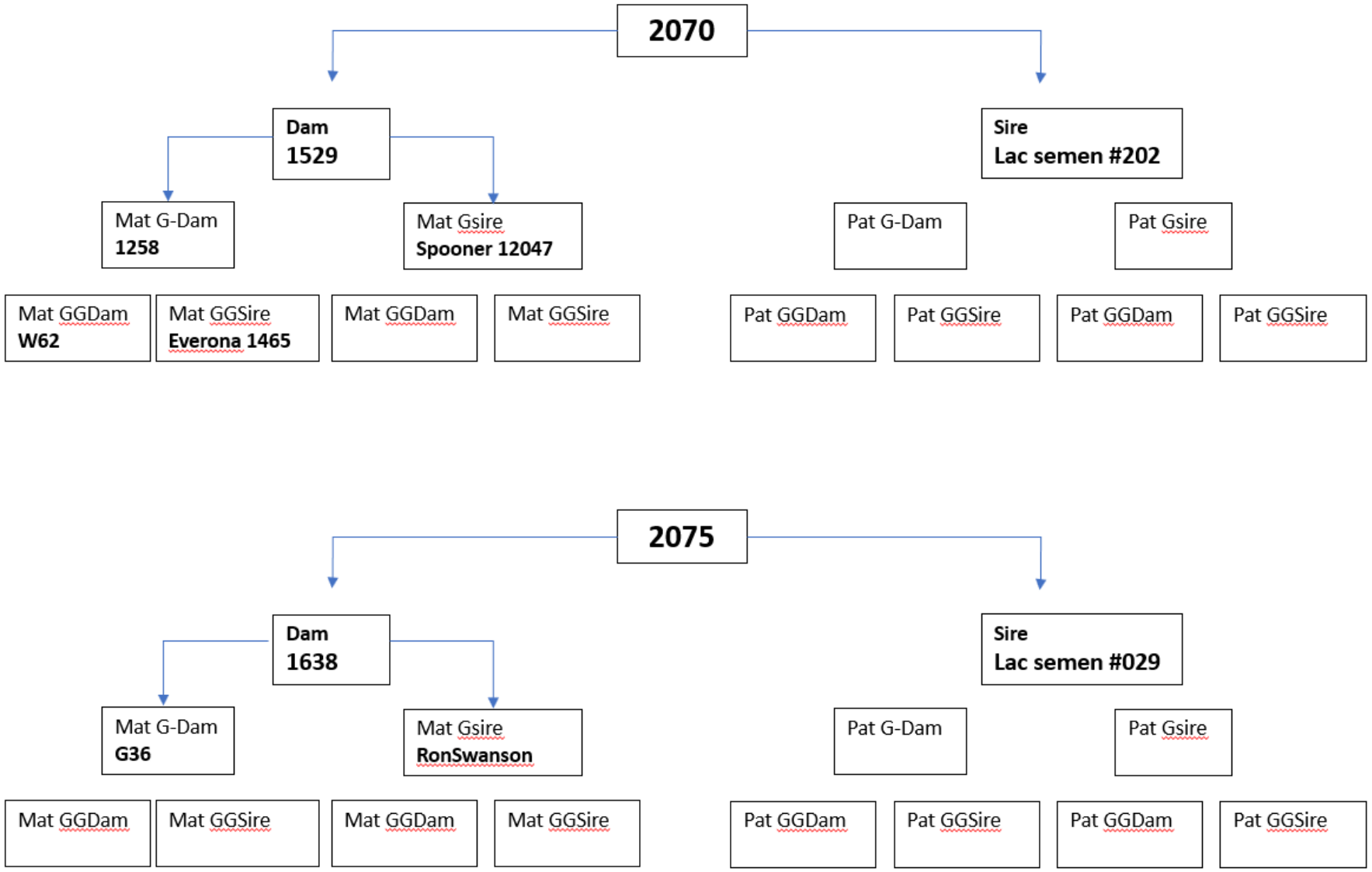
1. Ram lambs available for sale/choice

					Paternal grand-sire	Paternal grand-dam	Maternal grand-sire	Maternal grand-dam	
Ram lamb #	**DOB**	**Sire**	**Dam#**	**Litter**	(Sires of 2070 & 2075)	(Dams of 2070 & 2075)	(Sire of dam)	(Mother of dam)	Sold/ chosen
R 2125	26-Feb	2070 A	1647	TR	Lac 202	1529	RS	1477	
~~**R 2129**~~	27-Feb	2070 A	1736	TW	Lac 202	1529	William 506	1478	Sold/ chosen
R 2130	27-Feb	2070 A	1736	TW	Lac 202	1529	William 506	1478	
R 2136	28-Feb	2070 A	1436	TW	Lac 202	1529	RS	1360	
R 2137	28-Feb	2070 A	1436	TW	Lac 202	1529	RS	1360	
R 2138	1-Mar	2070 A	1919	TW	Lac 202	1529	208-i	1434	
~~**R 2139**~~	16-Mar	2070 A	1638	TR	Lac 202	1529	RS	G36	Sold/ chosen
R 2140	16-Mar	2070 A	1917	TW	Lac 202	1529	LAC 029	1738	
R 2124	24-Feb	2075 B	1529	TR	Lac 029	1638	SP047	1258	
~~**R 2133**~~	27-Feb	2075 B	1863	TR	Lac 029	1638	LAC 095-J	1647	Sold/ chosen

2. Lineages of sires of MWD Rams# 2070 & 2075:



3. How we get our Estimated Breeding Values (EBVs).

We have been metering our dairy flock since 1998. Since 2018, we have been enrolled in DSANA's Genetic Improvement Program, and have been sending our metering data and component sampling information to Genovis in Quebec for genetic analysis and EBVs. For a complete description of the process, from metering and individual sampling, to utilizing EBVs in our breeding/culling/selection decision-making, we really recommend taking a look at our document: "*How we used EBVs in 2019*", which we presented at the 2019 Dairy Sheep Symposium. We have also put together a document that explains EBVs: "*Understanding EBVs*". You can find both documents at www.meadowoodfarms.com, under the "Dairy-Sheep" menu. *[If you are interested in joining the DSANA Production Improvement Program, and generating EBVs within your own dairy sheep flock, go to www.DSANA.org/Genetic Improvement, and then contact Rebecca King, the PIP Coordinator.]*

Dams' and granddams' EBVs : *These EBVs are as of Dec 31st 2020.* *Except where noted, all EBVs are "Parity2", for the second lactation and beyond.*

** Some grand-dams are no longer in our milking flock, but their EBVs are current because of the continuing production information from their female progeny and relatives.*

** We use Parity2 EBVs, for predictive performance in the 2nd lactation and beyond. EBVs for 1917 & 1919 are Parity 1, and don't reflect emerging performance in 2021.*

Dam#	Grand-dam #	*EBV milk yield (kg)*	EBV milk yield (lb)	Milk Yield Acc.	*EBV Fat kg*	EBV Fat, lb	Fat yield Acc.	*EBV Prot kg*	EBV Prot, lb	Prot Yield Acc.	Notes
1436		*4*	9	77	*1.36*	3.0	71	*0.60*	1.3	71	Parity 2
1529		*103*	227	78	*7.36*	16.2	73	*6.01*	13.2	73	Parity 2
1638		*116*	255	79	*4.76*	10.5	73	*5.30*	11.7	73	Parity 2
1647		*55*	121	77	*2.43*	5.3	71	*3.25*	7.2	71	Parity 2
1736		*80*	176	77	*3.81*	8.4	71	*3.81*	8.4	71	Parity 2
1863		*104*	229	74	*5.69*	12.5	61	*4.96*	10.9	61	Parity 2
1917		*71*	156	71	*3.47*	7.6	58	*3.60*	7.9	58	Parity 1
1919		*65*	143	72	*3.19*	7.0	58	*3.67*	8.1	58	Parity 1
	1258	*26*	57	41	*2.57*	5.7	39	*1.95*	4.3	39	Parity 2, no longer in flock
	1360	*26*	57	22	*1.36*	3.0	22	*1.50*	3.3	22	Parity 2, no longer in flock
	1434	*41*	90	74	*2.46*	5.4	67	*2.24*	4.9	67	Parity 2, no longer in flock
	1477	*28*	62	42	*1.04*	2.3	42	*1.61*	3.5	42	Parity 2, no longer in flock
	1478	*18*	40	77	*0.97*	2.1	73	*1.29*	2.8	73	Parity 2
	1647	*55*	121	77	*2.43*	5.3	71	*3.25*	7.2	71	Parity 2
	1738	*48*	106	77	*2.86*	6.3	71	*2.35*	5.2	71	Parity 2
	G36										Not in flock since 2015

Notes on interpreting the EBVs:

Milk yield: In kg or lb, this is the average difference (positive or negative) in milk yield between this ewe and the average of all other dairy sheep females in the Genovis' North American dairy sheep database. Genovis standardizes all milk yields, as well as Fat and Protein Yields, to a 220-day lactation. You will see that we have not offered any ram lambs from ewes with negative EBVs for Milk Yield. *Note: Genovis gives us EBVs in Kg. We have derived the Lb. equivalents by multiplying the Kg yield by 2.2.*

Acc: "Accuracy". This indicates the accuracy of the EBV – the higher the better, with "0" being very little confidence whatsoever. Females with less production history and/or fewer female relations in production will have lower accuracy, and those with more years in production or more female relations in production will have higher accuracy. Thus you will notice that our yearlings (19xx) have slightly lower accuracies because this is their first year in milk production, although the production of their female relatives helps greatly in their accuracy. Ewes born in 2015-2018 have higher accuracies, because we have more production information on them (we started uploading milk production data for EBVs in 2018), and/or because they have more recorded daughters in production.

Fat yield and protein yield (kg or lb). The EBV (i.e., "EBV Fat, Lb" or "EBV Protein, Lb") indicates the predicted amount of fat or protein this ewe produces over the average of all other dairy sheep females in the Genovis' North American dairy sheep database. If you are interested in component production for cheese processing, selection on fat yield and protein yield is a better guide than Average Daily Fat % or Average Daily Protein %. This is because Fat Yield and Protein Yield indicate her total component production over the entire 220-day milking season, and takes into account both her milk yield and her component percentage.

4. Dams' (and some granddams') milk production for 2020 production season

Ewe#	Lamb'g pt	18 Feb	DIM 2/18	4 Mar	DIM 3/5	18 mar	DIM 3/18	31 mar	DIM 3/31	15 Apr	DIM 4/15	5 May	DIM 5/5	18 May	DIM 5/18	2 June	DIM 6/2	15 June	DIM 6/15	13 July	DIM 7/13	12 Aug	DIM 8/12	15 Sep	DIM 9/15	12 oct	DIM 10/12	Avg lb/DIM	*Avg lb/DIM w age*	Total 2020 (from lamb dt to 29 Oct)	7 Feb equiv (265 DIM) w age factor
1436	1-Apr									8.6	14	10.7	34	7.8	47	10.5	62	7.6	75	6.6	103	5.3	133	4.3	167	2.1	194	6.3	*7.1*	1,254	1,801
1478	1-Apr									10.0	14	8.0	34	8.3	47	8.3	62	6.1	75	5.5	103	4.4	133	3.7	167	3.0	194	5.7	*6.4*	1,144	1,638
1529	10-Feb	10.9	8	13.0	23	13.0	34	9.7	49	9.1	65	9.6	85	9.0	98	6.9	113	8.6	126	5.5	154	5.3	184	5.4	218	4.4	245	7.5	*7.5*	1,902	1,924
1638	10-Feb	11.8	8	11.9	23	11.0	34	13.2	49	10.8	65	10.2	85	11.0	98	9.3	113	6.1	126	6.4	154	5.1	184	4.3	218	3.6	245	8.2	*8.2*	2,074	2,099
1647	15-Feb	5.7	3	7.8	18	7.3	29	7.5	44	6.4	60	5.9	80	5.0	93	5.7	108	5.6	121	4.3	149	4.6	179	5.4	213	4.4	240	5.7	*5.7*	1,435	1,480
1736	14-Feb	8.0	4	10.5	19	10.0	30	8.4	45	6.9	61	7.2	81	7.5	94	6.9	109	5.8	122	4.7	150	4.8	180	4.8	214	3.3	241	6.1	*6.9*	1,531	1,778
1738	27-Feb			8.0	6	7.8	17	9.7	32	6.9	48	6.4	68	6.0	81	4.5	96	5.1	109	4.5	137		167	3.4	201	3.3	228	5.1	*5.7*	1,202	1,473
1863	14-Feb	6.9	4	9.1	19	10.5	30	9.7	45	8.9	61	10.2	81	8.3	94	8.1	109	6.1	122	4.5	150	4.4	180	4.3	214	3.9	241	6.8	*8.4*	1,695	2,160
1917	3-Apr									6.4	12	7.2	32	7.3	45	8.1	60	7.1	73	5.7	101	5.8	131	3.1	165	3.0	192	5.6	*8.1*	1,127	2,077
1919	22-Mar							5.5	8	6.9	24	7.2	44	7.5	57	7.4	72	6.1	85	5.0	113	3.4	143	4.0	177	3.6	204	5.2	*7.5*	1,121	1,946

Notes for metering in 2020: We metered every other week, until all of our April-lambing ewes are about 100 Days in Milk, after which we metered ~ 1x/mo. All ewes were dried off on October 31st. To give you some perspective on the dams and grand-dams shown above:

- *Average milk harvested in 2020 over all age groups (i.e., yearlings to 7-yr-olds): 1,140#/ewe*
- *Average milk produced/DIM: 5.3#/DIM actual and 6.4#/DIM adjusted for age*
- *Average total production/ewe adjusted to 265 DIM and adjusted for age: 1,602#*

Notes on our use of an "age factor":

To help us compare apples to apples within a single season, we apply the "age factor" developed by Dave Thomas and Yves Berger at the U of Wisc. Spooner sheep research flock in 2002. This projects the production of the young animal (and the much-older animal) to put their production on par with a 4-yr-old ewe at mature production. We use the age factor on overall production and on the season's production per days-in-milk. Thus:

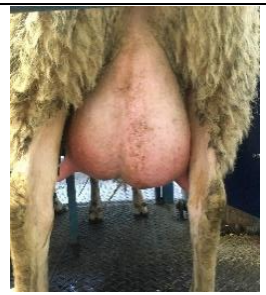
*Yearling's production * 1.44 => 4-yr-old equivalent*
*2-yr-old's production * 1.24 => 4-yr-old equivalent*
*3-yr-old's production * 1.13 => 4-yr-old equivalent*
*4-yr-old's production * 1.00 => 4-yr-old equivalent*
*5-yr-old's production * 1.00 => 4-yr-old equivalent*
*6+-yr-old's production * 1.13 => 4-yr-old equivalent*

Notes on making everyone "equivalent" for 265 Days in Milk (column labeled "7 Feb equiv…"):

Some ewes lambed in the first week of February, and some in late April. With a hard dry-off date of Oct 29, that means the late-April-lambers are milking for 90 fewer days. Again, to be able put everyone on an apples-to-apples equivalent, to help us with our own comparisons and decision-making, we use each ewe's average production per DIM to estimate what their production might have been if they had milked the full 265 days.

5. Dams' udders and production notes, with pictures of granddams' udders

Ewe#	Production notes	Udder	Ewe#	Production notes	Udder
1258		 1258 as a 4-yr-old	1434		 1434 as a 2-yr-old
1436	In 2021 we are *still* milking 1436, as a 7-yr-old, who peaked at over 10# in her first 60 DIM. Her production has been eclipsed by our newer genetics, but she clearly has the genetics for hardiness/longevity and disease resistance.	 1436 as a 2-yr-old	1477		 1477 as a yearling
1478		 1478 as a 2-yr-old	1529	In 2018, 1529 produced (as a 3-yr-old) 1,336 lb milk from 4/15 – 10/15. In 2019 we finally realized that she was a top milk producer with top component %, and bred her to keep ram lambs from her. In 2020, 1529 averaged 7.5# milk/d over a 260-d lactation.	 1529 as a 3-yr-old

1638	In 2020, 1638 produced 2,047# milk in 260 days. In 2019, she produced 1,650# milk in 225 days. *Note: most of our 2016 ewes have lop-sided udders because in 2017, as yearlings, we were forced to stop milking and they suckled [mostly] single lambs. This permanently affected their udder shapes.*	 1638 as a 2-yr-old	1647	She has daughters and granddaughters with great production and udders (see 1863). 1647 produced 1,173# in 192 d in 2019. *Note: most of our 2016 ewes have lop-sided udders because in 2017, as yearlings, we were forced to stop milking and they suckled [mostly] single lambs. This permanently affected their udder shapes.*	 1647 as a 5-yr-old
1736	In 2020, 1736 produced 1,531# milk in 256 days. In 2019, she produced 1,514# milk in 263 days.	 1736 as a 2-yr-old	1738		 1738 as a 2-yr-old
1863	1863 is the daughter of 1647, by Lacaune 2017 semen ram # 095-J. In 2020, 1863 was still milking over 10# milk/d at 81 DIM (the new May grass caused an upturn in production in most of the February-lambing ewes).	 1863 as a 2-yr-old	1917	1917 is the daughter of 1738 (an average producer), by Lacaune 018 semen ram # 029. As a yearling in 2020, 1917 peaked at 8.1# milk/d at 60 DIM. In 2021 she metered 9.7# milk/d at 31 DIM.	 1917 as a yearling
1919	In 2021, 1919 is only 45 days in milk, but is going strong: 11.1 # milk/d at 45d.	 1919 as a yearling	G36		 G36 as a 2-yr-old

6. Sire information on semen sires and rams seen in 2020 ram lambs' lineages

Lacaune semen: Yield, component, & conformation indices on Lacaune semen/rams imported by DSANA in 2017 & 2018
(Paternal grand-sires # 029 & # 202)

PROPOSITION CATALOGUE SEMENCE DSANA _ 10/07/2018

	Animal	Nombre doses	CD lait	index lait	index production	ISOL	pere	
OVITEST	55173540241	50	89	260	350	287	16176200632	55
OVITEST	16240940256	50	97	162	92	258	16031702529	16
[redacted]	16229330029	100	90	123	491	246	[redacted]051436	16
[redacted]	16039840202	50	89	287	312	276	[redacted]04487	16
OVITEST	16031740133	26	93	64	140	209	16068010285	16
[redacted]	16340340535	120	89	210	180	290	[redacted]10104	16
CONFEDERATION	16236140300	50	91	507	447	296	16038804313	16
CONFEDERATION	16166911510	50	92	448	354	272	[redacted]80005	16
[redacted]	16133950028	100	86	261	157	246	[redacted]10230	16
CONFEDERATION	16167640005	58	87	19	150	207	16136501905	16
[redacted]	16337050248	100	81	391	260	248	[redacted]0379	16
CONFEDERATION	16337150269	50	96	28	272	232	16262720332	16
	somme	804						

2017 Lacaune Semen, Tested Ram Performance for semen sent to DSANA

Animal ID	EBV	Milk Index	ISOL
16257830095	399	492	283
16463040171	9	-21	272
16257740410	475	353	259
55233120124	33	9	227
16213930246	115	216	226
16123120208	306	431	219
16024710013	401	290	208
16258530729	551	512	207
16289040132	242	216	198
16340340524	414	290	192
55153210272	256	480	188
16329840238	139	116	164

- Index lait = Milk index => index of milk improvement which includes volume + components
- Index production = expected measure of production (yield) above flock average (average Lacaune flock in France).
- CD lait = accuracy of numbers in %
- ISOL = index the Lacaune society has created, melding milk volume & components with udder conformation. DSANA allocated semen to purchasing farms based on an even distribution of the ISOL index.

Note: MWD did not choose which rams to receive from DSANA. Rams were randomly allotted to the farms that purchased the Lacaune semen. The red marks in the 2018 group were the rams/semen sent to MWD.

Note: Which straws of semen were used on which ewes was completely random. Our 2021 selection of ram lambs for sale was based solely on dam's EBV, production history, and udder conformation.

Other rams seen in lineages

"RS", known as "Ron Swanson" at the time

Tag # **13350** ("**Ron Swanson**, **RS**"). Purchased from the Spooner Research Station, U Wisconsin.
61% EF; 36% L

No dam production information
Grand-Dam #10324 produced

- 1st lactation: 320 L in 189 d (= 84 gal = 727 lbs = avg 3.85 lb/d over 6.3 months)
- 2nd lactation: 548 L in 238 d (= 145 gal = 1,247 lbs = avg 5.24 lb/d over 8.0 months)

In the 2015 milking season, we recognized that the 16 daughters of Ram #13350 (named "Ron Swanson") had almost uniformly the best udder conformations in our flock of 150+ ewes, and also held 8 of the top 10 places in terms of milk yield and end-of-season persistence. Because of this apparent genetic strength, we used RS on 80% of our replacement-producing ewes in both the 2015 and 2016 breeding seasons. The impact of this ram on our flock udder conformation was remarkable in only two short years, increasing milk production and radically improving the flock's udder conformation.

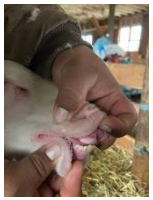
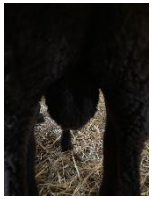
"SP 047" : Tag # **12047**, DOB 2012
66% EF, 32% L, purchased from Spooner Research Station

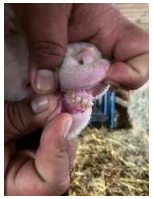
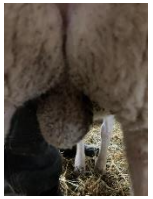
Dam production:
1st lactation: 683 lbs in 205 d (avg 3.33 lb/d)
2nd lactation: 836 lbs in 211 d (avg 3.96 lb/d)
3rd lactation: 1,383 lbs in 235 d (avg 5.89 lb/d)

"William506" : MWD-born ram, DOB 2016
Sire: #13350 RS
Dam: 1484 -- was one of our earliest rock stars with great production relative to the flock at the time (peaked at 9.7# at 83 DIM as a 2-yr-old), and a great udder, which she generously passed on to all her progeny.


1484 as a 2-yr old

7. Pictures of the 2021 ram lambs available for sale.

Ram	Head	Teeth	Testicles	Whole	DOB	30-d wt (lbs)	Wt Apr 30 (lbs)	*Age at 30 Apr (days)*
R 2124					26-Feb	36	60	*63*
R 2125					27-Feb	42	66	*62*
R 2129					27-Feb	32	62	*62*
R 2130					28-Feb	38	64	*61*
R 2133					28-Feb	34	54	*61*

R 2136					1-Mar	38	52	*60*
R 2137					16-Mar	36	42	*45*
R 2138					16-Mar	35	44	*45*
R 2139					24-Feb	35	60	*65*
R 2140					27-Feb	33	50	*62*

8. Information on the impact of imported Lacaune semen on 2019 F1 yearlings' production at Meadowood Farms

As we continue to use the imported Lacaune semen, almost all of our young ewes now between 25-75% Lacaune-semen breeding in them. It is now harder to tease out direct comparisons between the production of ewes with and without the Lacaune semen genetics (this is where the EBVs come in!). Below are the comparative production levels of our first F1 yearlings in 2019, relative to their 0 % -semen contemporaries (yearlings sired by good performance-tested US-bred dairy rams)

The tables below show the production of:

1. the daily production of all our 2019 yearlings as of May 30 2019, comparing the production of our 1st batch of Lacaune-semen-sired yearlings with their domestically-sired contemporaries, and
2. the production of the top 10 yearlings in each of the groups of Lacaune-semen-sired yearlings and the domestically-sired yearlings, as well as the top 10 2018 yearlings of all-MWD-breeding

Production of Lacaune-semen-sired vs domestically-sired yearlings as of 30 May, 2019 season

	Lac	Dom
avg DIM	59	48
avg age at lambing	375	353
avg lb/d	6.0	4.1
highest lb/d	8.6	6.8
lowest lb/d	3.5	1.8

Prod'n of top 10 yearlings at ~ 45 DIM, comparing 2019 yrlgs (Lac-semen-sired & Domestically-sired) along with 2018 yearlings.

	Lb/d	avg DIM
2019 Lac	6.5	47
2019 Dom	5.6	49
2018 Yrlngs	5.0	40

Top 10 2018 Yrlngs: Avg total prod'n for 2018 season: 900 lbs per yearling

Final year-end production information from 2019 Lacaune-semen-sired yearlings at Meadowood Farms

At the end of our 2019 milking season, the average production of *all* our Lacaune-semen-sired yearlings was nearly 900 lbs of milk over an average of 211 days in lactation (we take lambs off ewes at birth, and start milking at Day1). Also, in 2019, our top Lacaune-semen-sired yearling produced over 1,200 lbs of milk in 220 days.