2020 Meadowood Farms Ram lambs for sale

In January we identify the top ewes from whom to save ram lambs for ourselves and for sale. We first identify our top ewes by their Estimated Breeding Values (EBVs), which take into account the production of <u>all</u> 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 check, we then consider their 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).

All 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.

As we understood that most of our interested ram buyers wanted F1 and F2 ram lambs from the Lacaune semen imported in 2017 and 2018, 11 of the 13 ram lambs available are ½- and ¾-Lacaune-semen-sired. A couple of ram lambs, by request, were naturally-sired and have a larger percentage of the pre-semen Meadowood genetics in them. [We also have two ¾-Assaf ram lambs for sale. These will be sold via online auction, in conjunction with Ms J and Co, on or July 16th. Details on these animals are posted on our website at www.meadowoodfarms.com/assaf-ram-sale.]

All dairy ram lambs born at Meadowood Farms are identified as soon as they are born – to be held as our own replacements, offered for sale, or 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 of the select ram lambs that show conformational flaws. All select ram lambs are checked for correct mouths, basic conformation, descended testicles, and 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 the pages below you will find the following information:

- 1. Ram lambs available for choice. Includes their lineages, DOB, litter size.
- 2. Information on how we generate EBVs.

- 3. Dams' and granddams' EBVs, and notes on how to interpret them.
- 4. Dams' and granddams' milk production for 2020 to date and 2019.
- 5. Dams' and granddams' udders and production notes
- 6. Sire information on semen sires, clean-up ram, and rams seen in lineages
- 7. Pictures of the ram lambs available for sale. Includes mouth, testicles, head, and body.
- 8. Information on the Impact of imported Lacaune semen on F1 yearlings' production at Meadowood Farms

1. Ram lambs available for sale/choice

Ram lamb						Maternal	<u>Maternal</u>	LW, 6/3
tag#	<u>DOB</u>	<u>Sired by</u>	<u>Sire ID</u>	<u>Dam#</u>	<u>Litter</u>	<u>Granddam</u>	<u>Grandsire</u>	(lbs)
2273	10-Feb	Lacaune semen	L028	1611	TR	1258	Spooner EFxL, #13350	94
2274	10-Feb	Lacaune semen	L029	1925	S	1501	Lacaune semen 208	108
2283	12-Feb	Lacaune semen	L028	1906	S	1461	Lacaune semen 238	100
2284	12-Feb	Lacaune semen	L028	1907	TW	1461	Lacaune semen 238	95
2289	13-Feb	Lacaune semen	L028	1908	S	1710	Lacaune semen 246	104
2291	13-Feb	Lacaune semen	L028	1850	S	1741	Lacaune semen 208	101
2294	14-Feb	Lacaune semen	L029	1623	TW	1481	Spooner EFxL, #13350	92
2297	15-Feb	Lacaune semen	L132	1847	TW	1707	Lacaune semen 208	106
2298	15-Feb	Lacaune semen	L132	1847	TW	1707	Lacaune semen 208	112
R2006	28-Feb	1/2-Lacaune ram	MWD 2250	1715	TW	1521	Spooner EFxL, #13350	96
R2008	1-Mar	1/2-Lacaune ram	MWD 2250	1716	TW	1473	Spooner EFxL, #13350	88

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

We have been metering our 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/Genetitic Improvement, and then contact Rebecca King, the PIP Coordinator.]

3. Dams' and granddams' EBVs

These EBVs are as of June 2^{nd} 2020. All EBVs are "Parity2", for the second lactation and beyond.

Dam#	Grand- dam #	Notes	Milk yield (kg)	Milk yield (lb)	Milk Yield Acc.	міlk Yield %Rank	Avg Daily Fat %	Fat yield (kg)	Fat yield (lb)	Fat yield Acc.	Fat Yield %Rank	Avg Daily Prot %	Protein yield (kg)	Protein yield (lb)	Prot Yield Acc.	Prot Yield %Rank
	1258	*	41.06	90	41	81	+0.18	3.32	7.3	40	90	+0.12	2.43	5.3	40	84
	1461	*	37.61	83	75	79	-0.24	1.68	3.7	66	78	-0.10	1.53	3.4	66	76
	1473	*	7.07	16	37	56	+0.03	0.65	1.4	37	64	+0.08	0.65	1.4	37	62
	1481	*	9.73	21	41	59	+0.04	0.26	0.6	41	57	+0.12	0.54	1.2	41	60
	1501	*	12.65	28	74	64	+0.00	0.97	2.1	66	69	-0.02	0.62	1.4	66	61
	1521		31.30	69	76	76	-0.12	1.22	2.7	71	72	+0.15	1.67	3.7	71	78
1611			36.44	80	75	79	+0.03	2.22	4.9	68	82	+0.11	1.81	4.0	68	79
1623			31.36	69	75	76	+0.04	1.62	3.6	6	77	+0.25	2.03	4.5	66	81
	1707		66.77	147	77	90	-0.05	3.99	8.8	68	93	-0.02	3.16	7.0	68	90
	1710		31.41	69	75	76	-0.05	1.88	4.1	60	80	-0.01	1.45	3.2	66	75
1715			50.57	111	77	85	-0.06	2.81	6.2	70	86	+0.14	2.98	6.6	70	88
1716			45.53	100	75	83	-0.04	2.60	5.7	66	85	+0.12	2.75	6.1	66	87
	1741	*	44.02	97	37	82	-0.12	2.45	5.4	30	84	-0.07	1.94	4.3	30	80
1847			95.57	210	72	96	-0.01	5.64	12.4	35	97	+0.06	5.00	11.0	35	97
1850			111.95	246	70	98	-0.04	6.45	14.2	20	98	+0.04	5.74	12.6	20	98
1906		**	62.90	138	41	89	-0.11	3.46	7.6	35	90	+0.02	3.28	7.2	35	90
1907		**	62.94	138	41	89	-0.11	3.46	7.6	35	90	+0.02	3.29	7.2	35	90
1908		**	59.85	132	41	88	-0.01	3.57	7.9	35	91	+0.07	3.25	7.2	35	90
1921		**	48.97	108	41	84	-0.05	2.75	6.1	37	86	-0.01	2.47	5.4	37	85
1925		**	50.45	111	40	85	+0.01	3.11	6.8	35	88	+0.06	2.84	6.2	35	88

Ewes with * and **:

^{*} Ewes: These ewes are not in our current milking flock, but their EBVs are current because of the continuing production information from their female relatives.

^{**} Ewes: These are our yearlings. We use Parity2 EBVs, which are the predictive performance of them in their 2nd lactation and beyond.

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. Females with less production history and/or fewer female relations in production will have lower accuracy, and those with more female relations in production will have higher accuracy. Thus you will notice that our yearlings (19xx) have lower accuracies because this is their first year in milk production. 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.
- % Rank. This shows where this ewe's EBV ranks amongst all North American dairy ewes in the Genovis system. If a ewe's trait (milk yield, fat yield, etc) has a % Rank > 50%, this shows that she is above average for that trait across all dairy ewes being milk-recorded in Canada and the US.
- Fat yield (kg or lb). 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.
- Daily Fat %. This gives the EBV of this ewe's average daily fat percentage. This is based on the fat percentage shown in her five monthly milk samples taken at Meadowood in April through August, as well as the fat percentages of all her female relations in milk production. We have not included the Acc. or % Rank for Daily Fat % or Daily Protein %.
- Protein yield (kg or lb). 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.
- Daily Protein %. This gives the EBV of this ewe's average daily protein percentage. This is based on the protein percentage shown in her five monthly milk samples taken at Meadowood in April through August, as well as the protein percentages of all her female relations in milk production. We have not included the Acc. or % Rank for Daily Fat % or Daily Protein %.

4. Dams' (and some granddams') milk production for 2020 to date (top table) and for 2019 (table below)

Ewe#	Lamb'g Dt	18-Feb	<u>DIM</u> 2/18	4-Mar	DIM 3/5	<u>16-Mar</u>	DIM 3/18	31-Mar	<u>DIM</u> 3/31	15-Apr	DIM 4/15	<u>5-May</u>	DIM 5/5	18-May	DIM 5/5	2-Jun	DIM 6/2	Total lb to 6/2	Avg Ib/DIM
1521	19-Mar							8.8	11	7.2	27	8.8	47	7.3	60	7.6	75	625	8.3
1611	10-Feb	9.3	8	8.9	23	8.5	34	6.8	49	7.8	65	8.6	85	6.3	98	7.2	113	880	7.8
1623	14-Feb	9.7	4	8.9	19	9.1	30	9.7	45	7.2	61	8.8	81	6.5	94	7.4	109	890	8.2
1707	17-Mar							9.2	13	9.1	29	10.7	49	10.0	62	9.3	77	763	9.9
1710	25-Mar							5.5	5	6.4	21	5.4	41	3.0	54	3.8	69	387	5.6
1715	28-Feb			11.9	5	10.3	16	9.7	31	8.6	47	8.8	67	6.8	80	6.2	95	921	9.7
1716	1-Mar			7.5	3	7.1	14	8.8	29	5.8	45	6.2	65	5.3	78	5.5	93	684	7.4
1847	15-Feb	9.7	3	8.7	18	9.6	29	9.2	44	8.3	60	8.8	80	8.3	93	6.0	108	905	8.4
1850	13-Feb	7.6	5	9.1	20	9.1	31	10.1	46	8.9	62	8.6	82	8.5	95	7.4	110	964	8.8
1906	12-Feb	2.1	6	1.6	21	1.8	32	1.8	47	2.2	63	2.1	83	2.0	96	2.4	111	222	2.0
1907	12-Feb	1.9	6	4.1	21	4.8	32	4.4	47	5.3	63	4.6	83	2.8	96	2.4	111	437	3.9
1908	13-Feb	3.8	5	3.4	20	3.9	31	4.4	46	4.4	62	4.0	82	3.5	95	4.1	110	435	4.0
1925	10-Feb	2.5	8	2.7	23	3.4	34	3.5	49	3.6	65	3.2	85	3.0	98	2.9	113	357	3.2

2019

Ewe#	Lamb'g Dt	18-Feb	DIM 2/18	5-Mar	<u>DIM</u> 3/5	18-Mar	DIM 3/18	<u>1-Apr</u>	DIM 4/1	16-Apr	DIM 4/16	2-May	<u>DIM</u> 5/2	16-May	<u>DIM</u> 5/17	30-May	<u>DIM</u> 5/31	21-Jun	DIM 6/21	<u>9-Jul</u>	DIM 7/9	30-Jul	DIM 7/30	2-Sep	DIM 9/2	16-Sep	DIM 9/16	<u>1-0ct</u>	DIM 9/30	31-Oct	DIM 10/30	total to 10/31
1461	3-Feb	6.3	15	6.8	30	6.6	43	5.9	57	6.2	72	6.8	87	6.4	103	6.1	117	6.2	137	5.7	155	4.6	177	3.7	211	4.0	225	3.5	239	3.1	269	1,438
1501	6-Feb	5.5	12	6.4	27	7.5	40	6.6	54	5.5	69	6.9	84	5.3	100	5.9	114	4.0	134	5.1	152	3.7	174	2.6	208	2.4	222	2.0	236			1,185
1521	20-Mar							7.5	12	7.9	27	8.6	42	8.4	58	7.7	72	8.6	92	7.5	110	4.4	132	4.0	166	2.9	180	2.2	194	1.8	224	1,300
1611	14-Apr									5.9	2	5.1	17	10.6	33	10.3	47	6.4	67	6.6	85	5.3	107	4.0	141	3.7	155	4.8	169	2.2	199	1,157
1623	12-Apr									4.6	4	3.5	19	10.1	35	8.4	49	7.3	69	7.7	87	5.3	109	4.4	143	2.9	157	4.4	171	2.4	201	1,120
1707	5-Feb	5.2	13	5.7	28	6.2	41	6.4	55	7.0	70	7.5	85	6.4	101	7.5	115	5.6	135	6.4	153	5.5	175	3.3	209	3.5	223	3.4	237	3.1	267	1,444
1710	3-Feb	6.7	15	6.2	30	5.7	43	5.1	57	5.3	72	5.9	87	6.7	103	5.7	117	4.8	137	4.2	155	3.3	177	2.4	211	3.1	225	1.5	239	1.1	269	1,177
1715	2-Mar			7.8	3	7.0	16	6.4	30	6.4	45	6.6	60	6.2	76	6.8	90	5.1	110	4.6	128	4.0	150	4.2	184	2.9	198	3.7	212	2.2	242	1,223
1716	25-Mar							6.6	7	6.2	22	6.4	37	5.5	53	7.5	67	6.4	87	6.4	105	5.1	127	5.5	161	4.2	175	5.7	189	3.5	219	1,256
1847	9-Apr									4.0	7	4.6	22	5.7	38	6.4	52	6.2	72	6.2	90	5.5	112	4.4	146	3.7	160	3.7	174	2.0	204	987
1850	7-Apr									5.9	9	6.6	24	6.8	40	5.7	54	7.5	74	7.0	92	6.4	114	4.4	148	3.5	162	4.6	176	2.2	206	1,151

Notes for metering in 2109 & 2020:

- * We meter every other week, until all of our April-lambing ewes are about 100 Days in Milk.
- * In 2020: 1906 and 1907 are twin sisters.
- * In 2019: 1501 was one of our top producers in 2018, until she got bluebag and lost 1 side. Her 2019 production is on only 1 side!
- * In 2019: 1611 & 1623 nursed twins for 30d while milking 2x/d; their production records indicate only the milk that was metered.

5. <u>Dams' and granddams' udders and production notes</u>

Ewe#	Production notes	Udder	Ewe#	Production notes	Udder
1258		1258 as a 4-yr-old	1461	Produced 1,125# in 200d as a 4-yr-old, peaking at > 8/d for 81 days.	1461 as a 2-yr-old
1473	One of the old school, as a 2-yr-old, 1473 produced 826 lb in 147 days of lactation.	1473 as a 2-yr-old	1481	One of our original greats, 1481 was an easy milker. As a 2-yr-old, she milked 812 lb in 173 days of lactation.	1481 as a 2-yr-old
1501	In 2018, 1501 peaked at 11.9#/d before being hit by bluebag and losing one side. In 2019, with only 1 side, she produced 1,100# in 236 days of lactation. Her low EBV is a reflection of her 1-sided production for the last 3 years.	1501 as a 3-yr-old	1521	In 2018, 1521 milked 926# in 181 days of lactation, plus feeding one lamb for 30 days.	1521 as a 3-yr-old
1611	In 2019, 1611 suckled twins for 30d while being milked 2x/d. Her total metered milk production (in addition to the lambs' consumption) was >1,100# in 199d.	1611 as a 2-yr-old	1623	In 2019, 1623 also suckled twins for 30d while being milked 2x/d. Her total metered milk production (in addition to the lambs' consumption) was >1,100# in 201d.	1623 as a 3-yr-old
1707		1707 as a 2-yr-old	1710		As 2-yr-old

1715		1715 as a 2-yr-old	1716	1716 as a 2-yr-old
1741		1741 as a yearling	1847	1847 as a 2-yr-old
1850		1850 as a 2-yr-old	1906	1906 as a yrlng
1907	1907 had a bad start in her first year. We thought she had metritis, and then a week after lambing, discovered the 2 nd [longdead] lamb in her. But from her production records, you can see that she recovered.	1907 as a yrlng	1908	1908 as a yrlng
1925		1925 as a yrlng		

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

Lacaune semen: Yield, component, & conformation indices on Lacaune semen/rams imported by DSANA in 2017 & 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
	16229330029	100	90	123	491	246	3051436	16
	16039840202	50	89	287	312	276	04487	16
OVITEST	16031740133	26	93	64	140	209	16068010285	16
	16340340535	120	89	210	180	290	10104	16
CONFEDERATION	16236140300	50	91	507	447	296	16038804313	16
CONFEDERATION	16166911510	50	92	448	354	272	16134680005	16
	16133950028	100	86	261	157	246	10035510230	16
CONFEDERATION	16167640005	58	87	19	150	207	16136501905	16
	16337050248	100	81	391	260	248	0379	16
CONFEDERATION	16337150269	50	96	28	272	232	16262720332	16
	somme	804		λ	20			X' -

2017 Lacaune Semen, Tested Ram							
Performance for	semen	sent to I	DSANA				
		Milk					
Animal ID	EBV	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 ISOL index.

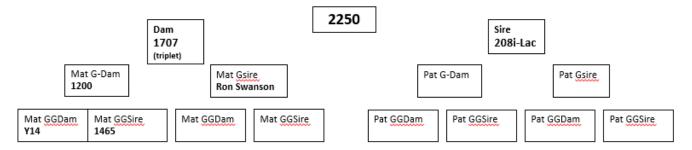
Note: all of the semen-sired ram lambs for sale were sired by the 2018 semen whose animal ID ends in 248, 028, or 029, and from one ram in the 2017 semen whose animal ID ends in 132.

Also 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.

Last note: Which straws of semen were used on which ewes was completely random. And our 2020 selection of ram lambs for sale was based solely on dam's EBV, production history, and udder conformation.

Clean-up ram used – sire of ram lambs R2008 and R2006

MWD Ram# 2250:



In the 2019 milking season, 1707 (dam of #2250) milked 1,400 lb milk as a two-year-old, in 267 days in milk, an average of ~ 5.25 lb/milk/d over the 267-d lactation. In 2020 she has averaged 9.9 lb milk/d in her 1st 77 days in lactation as of June 2nd. Her EBV is +67 kg (+147 lb) with an accuracy of 77, which puts her in the 90th percentile over all milk-recorded ewes in North America.

Grand-sire "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.

7. <u>Pictures of the ram lambs available for sale.</u>

Ram	Head	Teeth	Testicles	Whole	30-d wt (lbs)	Wt Apr 29 (~75-to 85-d wt, lbs)	Wt May 28 (~90-to 110- d wt, lbs)
2273					30	70	94
2274					35	80	108
2283					33	75	100
2284					33	69	95
2289					38	75	104
2291					38	75	101

2294			36	74	92
2297			40	79	106
2298			37	80	112
R2006			44		96
R2008			41		88
2281			35	86	114
2282			41	85	112

8. Information on the Impact of imported Lacaune semen on F1 yearlings production at Meadowood Farms

Compared to fellow yearlings sired by good performance-tested US-bred dairy ram

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
59	48
375	353
6.0	4.1
8.6	6.8
3.5	1.8
	59 375 6.0 8.6

<u>Prod'n of top 10 yearlings at ~ 45 DIM, comparing 2019 yrlgs (Lacsemen-sired & Domestically-sired) along with 2018 yearlings.</u>

	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, our Lacaune-semen-sired yearlings had averaged 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). Adjusted to 4-yr-old (mature) production, this would be an equivalent group <u>average</u> of 1,200+ pounds in a season! Also, in 2019, our top Lacaune-semen-sired yearling produced over 1,200 lbs of milk in 220 days.