

The Lincoln Letter

Publisher-North American Lincoln Red Association

SPRING/SUMMER 2015

A BRIDGE TO THE FUTURE FOR HERITAGE BREEDS

SARAH BOWLEY, PROGRAM DIRECTOR FOR SVF FOUNDATION

WWW.SVFFOUNDATION.ORG



Meet Chip. Chip is a typical ten-year-old goat in many ways: he enjoys grazing, romping, and napping in green pastures. But Chip is different in one key way. Thanks to a successful embryonic transfer into a surrogate, Chip is the nation's first cryogenically produced Tennessee Myotonic goat. The successful transfer took place at the SVF Foundation, a non-profit organization whose mission is to preserve the genetics of rare and endangered livestock breeds of cattle, sheep, and goats.

Since 2002, the SVF Foundation, situated on a beautiful historic farm estate in Newport, Rhode Island, has created a bank of heritage livestock genes by cryogenically preserving the germplasm—the semen, embryos, cells, and blood—of rare and endangered breeds.

Collaborating with Tufts' Cumming School of Veterinary Medicine, SVF has collected over 86,000 samples from 30 North American agricultural breeds, including eleven



cattle breeds, five goat breeds, and eleven sheep breeds. These breeds include those listed as critical—such as Canadienne, Dutch Belted, and Kerry cattle, Arapawa and San Clemente goats, and Gulf Coast and Hog Island sheep—as well those listed as threatened and watched—such as Ancient White Park and Red Poll cattle, Spanish and Myotonic goats, and Dorset Horn, Cotswold and

Navajo-Churro sheep. By taking and freezing at least 200 embryos and 3,000 straws of semen per breed, SVF is able to reawaken a breed—with its full genetic diversity—within one generation, should the need arise.

In 2014, SVF partnered with the Smithsonian Institute on the “Smithsonian and SVF Biodiversity Preservation Project” to take germplasm cryopreservation to the next level. This project features three main components: the continued collection and storage of germplasm, the management of endangered livestock populations, and the storage and curation of germplasm material at the Smithsonian's bio-repository and cryopreservation lab in Virginia. With this partnership, the project's germplasm bank is estimated to grow to 140,000 samples of 35 domestic breeds.



As of this winter, the focus of SVF has expanded to include the Lincoln Red, a hardy beef breed praised for its calm temperament and manageability. The Lincoln Red was developed in Lincolnshire, England, in the 1700's and has been recognized as a critically endangered breed in need of preservation within North America by the Livestock Conservancy. While some endangered breeds are of interest purely for their unique genetic makeup, the Lincoln Red offers something more – a proven track record of weight gain and economic viability in the fast growing grass-fed beef sector. Dedicated breeders within the US and Canada have tracked production records for this breed and hope to continue conservation efforts and increase visibility of the Lincoln Red for both breeders and consumers.

SVF is currently reaching out to Lincoln Red breeders. They are looking to include semen from a variety of registered bulls within the SVF gene bank, and will include donor cows for embryo collection by late 2015. If you

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have registered Lincoln Reds which would be appropriate for long-term preservation to represent the unique genetic diversity found within the breed please contact SVF Foundation to review pedigrees.

All of this work is extremely important in today's global agricultural climate, which depends heavily on a small number of highly inbred, genetically uniform breeds to produce the world's food supply. The danger of this practice is evident simply by recalling the Irish Potato Famine, where one population faced devastation when its main crop—a single variety of potato—was decimated by blight. To counter this global trend of dependence on a small number of highly inbred, genetically modified breeds, the SVF Foundation is collecting germplasm from dozens of breeds that show genetic diversity, such as disease and parasite resistance, heat tolerance, and mothering ability. Through the cryopreservation of genetically diverse livestock genes, the SVF Foundation—together with the Smithsonian Institute and Tufts—is working to protect the genetic diversity of the global food supply.

In addition to the mission of preservation, the SVF Foundation is committed to education. A series of free lectures on local farming systems, sustainable agriculture, conservation, and other pertinent topics, is offered through the year. As part of the collaboration with Tufts' Cumming School of Veterinary Medicine, SVF also offers internships for veterinary and undergraduate students. Although the campus is closed to the public for the health and safety of the animals, it is open one day a year in June on Visitor's Day (mark your calendar for Saturday, June 13th 2015!), allowing the public to take a self-guided walking tour of the campus, see sheep shearing and liquid nitrogen demonstrations, and meet the veterinarians and other professionals involved in SVF's work, as well as see some of the rare breeds who make their home at SVF, including Chip.

As the nation's first cryogenically produced Tennessee Myotonic goat, Chip was the first of his kind. But thanks to the work of the SVF Foundation, along with partners Tufts and the Smithsonian Institute, Chip's genes won't be the last rare and endangered breed to be saved through cryopreservation for possible future use in the world's global food supply.

PRESIDENT'S REPORT

Spring has finally arrived in Ontario after one of the coldest February's recorded in history. Other than having the water freeze temporarily in the barn for a couple of days, our Lincoln Red herd made it through the winter with good body condition. Strong maternal characteristics and excellent calving ease has our calving season off to a good start. It is important to evaluate the cow's teats at calving as this affects the calf's ability to receive its first colostrum and get started on its own. Records at this time of year such as birth weight, ability of the newborn calf to nurse on its own and cow temperament are all important when deciding which animals are kept and which ones are culled in the fall. Remember to take lots of pictures of your Lincoln Red cattle to keep our photo gallery updated on the North American Lincoln Red Association website.

Have a great summer!

Scott



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ALF'S RULE #1

BOB NUSBAUM, PROFESSOR EMERITUS, UNIV OF WISC PLATTEVILLE

Of all the cattlemen I've met, Alf Collins from Queensland, Australia is one of the most unique. He has built a registered Brahman herd that excels in numerous traits, but especially adaptability, longevity, fertility and docility. My wife and I have had the opportunity to visit him a few times and it has always been an enjoyable and rewarding experience. On one occasion, I think the first time I met him almost 25 years ago, I was helping him repair some corral fence and he asked me to get him a hammer which was outside the corral. I opened the gate, got the hammer, brought it back then shut the gate. Alf then asked me why I hadn't shut the gate when I walked through it the first time. What!?? I thought he was joking. I responded that I was on the other side of the gate for only a few seconds. He said it didn't matter. You ALWAYS shut a gate when you walk through it! No exceptions! He wasn't joking. That's part of what makes Alf unique. He explained that all six kids of his kids grew up with that rule, and he obviously figured it was a teachable moment for me even though I was in my early forties at the time. This may seem a bit extreme; after all, there usually is a valid reason for not shutting a gate each time through. Mostly, it saves time; you only have to get off the tractor or ATV half as many times and the cattle (or horses or sheep) generally don't see it's open before you come back. But occasionally something happens. You are gone longer than you think you'll be. You return via a different route and a different gate. You drove through it on a tractor thinking you'll come back to shut it after parking, but got busy at something else. Whatever the reason, we end up with escaped livestock. It happens and I know we've all been there and done that! I confess, I still leave gates open from time to time (knowing the risk) and occasionally I get caught and that's when my wife reminds me I didn't follow Alf's Rule # 1. But I've been able to remind her once in a while, too!

I've witnessed some other Alf "rules", too. Once we were moving his cows through an alleyway leading up to a chute. He was at the head gate and I was the "tail guy". One cow balked at the entrance to the chute and I started to twist her tail slightly to get her to move forward. Alf's cattle handling protocol didn't include that method of persuasion. He explained to me that if the cattle had an uncomfortable experience in the chute, it would be more difficult to get them through it the next time. His solution

was to wait until the cow felt relaxed and walked through on her own. We waited only a few minutes until she moved.

On another occasion we were loading three cows into a 16-foot trailer. The door was open and the cows were in a small pen. There was no place for them to go except into the trailer. I, once again, was behind them and ready to push them onto the trailer. Alf, once again, interceded and explained that they would walk on without any physical effort by us if we just let them survey the situation first and not hurry them. Cattle have poor visual depth perception so they always put their heads down and stop to investigate when moving into an unknown or dark area, especially like a trailer. These cows were afraid and did just that. They lowered their heads, stopped and sniffed the edge of the trailer. They stood there just a few minutes, did a couple of circles, and then calmly walked onto the trailer. All we did was stand behind them to provide some impetus to move. Since that time we've loaded a few hundred head this way and it always works the same. Sometimes it takes a while, but once they are comfortable they walk right on. I share these experiences with you because we have found that patience with cattle always makes them quieter and easier to work, which ultimately makes life more enjoyable (and, we don't have any more bent gates around the place).

I think Alf's greatest contribution to my livestock knowledge base came from his philosophy about adaptability, which is defined simply as the ability of a species to exist and continually reproduce in an environment. If animals don't adapt, they don't survive. Alf sells bulls to commercial producers in the Northern Territory which is a notoriously harsh environment for cattle. He needs to identify his toughest cows to produce the bulls that will work in those herds. So, to find them, he carefully measures the pregnancy conception rate of his replacement heifers. His target is 75%. (Which I initially thought was pretty drastic.) If they do better than that he claims he is too easy on them, if worse, he's too tough. He doesn't pamper them or provide any type of artificial environment like supplemental feed. They live on what the ranch provides except in emergency drought conditions.

A seedstock producer should be tougher on his cattle than the commercial herds that buy his bulls. Yet, in this country, the opposite is mostly true and many seedstock producers pamper their cattle. They provide very few

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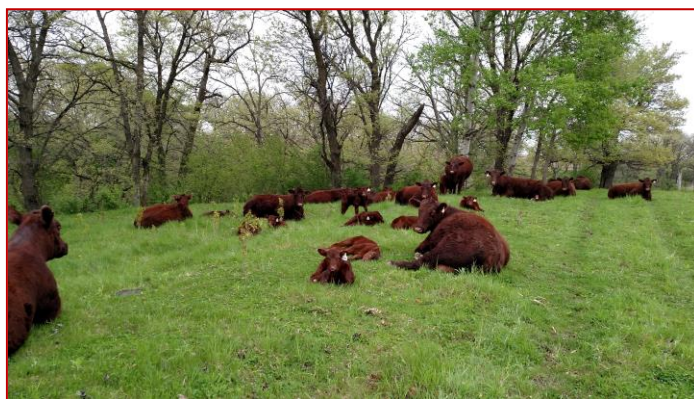
hurdles for them to jump over to prove themselves. Many calves are creep-fed masking the maternal ability of the cow. Heifers are developed with a 90% pregnancy conception rate as a goal which generally requires supplemental feed. Many yearling bulls are sold with impressive average daily gains and yearling weights but are not very fit or athletic and carry unnecessary condition. The axiom "never buy from an environment that is better than yours" is sound advice. Money-making bulls are the ones that produce cows that become teenagers, calve unassisted every year, and have tight udders, solid feet and a good disposition. Creating an environment in your operation that helps to genuinely identify these superior genetics should develop a cowherd requiring fewer inputs, thus reducing expenses and increasing profits.

Alf may be a bit eccentric about gates but I believe he is headed in the right direction for applying selection pressure on adaptability traits in his cowherd. He has confidence in his cattle and doesn't make excuses for them because he knows what they can do when they leave his place. Seedstock producers rely on repeat buyers for their economic success. Problem-free cattle that perform well for their new owners' make very happy customers.

May you remember to close all your gates!

HIGHLIGHTS FROM THE ANNUAL GENERAL MEETING

The Annual General Meeting was held by teleconference on February 21, 2015. Association membership, number of animals registered and transfer of animals has continued to increase. In the coming year, the Association will put forth funds for advertising and on showman awards. Rare Breeds Canada has contacted the Association regarding collecting a bull. A group of breeders imported some straws from UK in 2014 and we look forward to seeing those calves. The Board of Directors for 2015 will be John Ashby, Brian Harper, Dennis Hoffrogge, Scott McClinchey, Sarah Pedelty, and Cliff Rose. Welcome to the newest members: Roger Angowski, Pugwash, NS; Dr. Lincoln Montgomery, Buckingham, VA; Sheldon Schmaltz, Worsley, AB; SVF Foundation, Newport, R.I.



PLEASE SEND IN YOUR CATTLE REGISTRATIONS

Don't Forget: membership fees are due on Jan. 1st and are \$80 for the year. Please send your fees to Canadian Livestock Records Corporation 2417 Holly Lane Ottawa, Ontario, Canada K1V 0M7.

Your membership helps support the Association's promotional activities such as the website, newsletters, advertising and purchase of youth incentives.

Help us save money by receiving your newsletter electronically!

Please send an email to sarahpedelty@gmail.com or call Sarah at 507-867-9041.

Name _____

Address _____

Email _____

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MILNER'S PUT CROSSBRED LINCOLN RED HEIFERS ON TEST

PATRICK MILNER

From June 13th to November 4th 2014, we put 2 crossbred Lincoln Red heifers on test. They were sired by a purebred Lincoln Red bull and out of Hereford cows that were born in September of 2013. We decided to put them on test to see how the Lincoln Red blood would compare up against the other breeds there were on this test. I would have liked to see the results better from these heifers. If you have any questions about the test that I have not covered, please email me at patrickmilnercattle@hotmail.ca

There were 143 heifers on test, coming from 19 beef producers in the Atlantic Canada region. All the tests were done by 5 university students, 1 geneticist, and 1 researcher. All the tests were done at the Maritime Beef Test Station in Nappan Nova Scotia. The heifers were tested on their Productive Performance Measures such as their feed intake (FI), their residual feed intake (RFI), their average daily gain (ADG), their initial body weight (IBW), their final body weight (FBW), their back fat (BKFT), their rump fat (RUMP), their rib-eye area (REA) and their marbling (MARB).

Crane, E. Montanholi, E. Munro, J. (2015, February 23).

Enhanced beef heifer testing: Biological and Genomic indicators.



Patrick Milner - Fenwick, NS

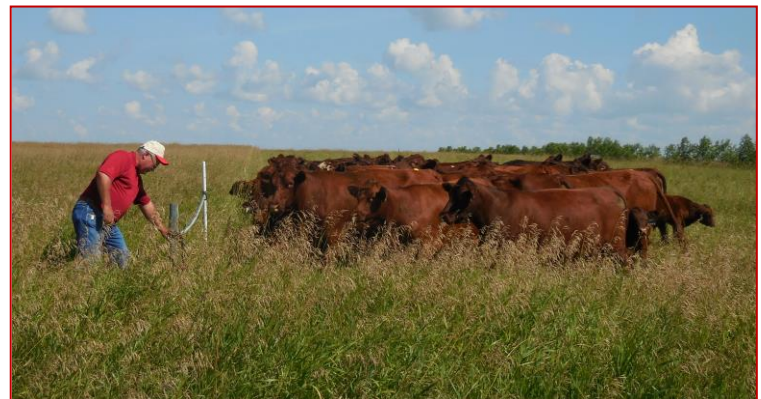
➔ Productive performance measures

Tag	FI	RFI	ADG	IBW	FBW	BKFT	REA	RUMP	MARB
WMF 12A	20.5	+2.0	0.58	268	331	3.21	45.88	1.39	7.33
WMF 13A	23.3	+2.4	0.76	270	352	4.98	44.65	2.77	7.15

HARPER PASTURE TOUR - JULY 13, 2015

Mark your calendars and plan to attend a pasture tour hosted by Brian and Sonja Harper. You will have the opportunity to see mob grazing and how this practice can increase your grass and profit. Also, you will have the opportunity to view some great cattle!

Contact Brian at 204-724-0936 for more details.



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SEEING IS BELIEVING!

Take a look at Lincoln Reds at one of these farms:

- **Roger Angowski**
Pugwash, NS
- **John and Lorraine Ashby**
Stonehedge Farms
Prescott, ON
(613)925-5778
www.stonehedgefarms.ca
- **Sarah Band**
Mohil Farms
Puslinch, ON
(519) 824-5619
- **Mead Ferguson**
Woodward, OK
- **Tom Fillmore**
Oxford, NS
- **Brian & Sonja Harper**
Brandon, Manitoba R7A 5Y3
(204) 725-2515
harper4@goinet.ca
<http://www.shaverbeef.com>
- **Dennis and Mary Hoffrogge**
Sleepy Eye, MN 56085
(507) 227-5745
50% bulls & heifers available
www.dmhoffroggecattle.com

- **Jim & Dori Kotek**
West Salem, WI
- **Scott & Heather McClinchey**
Orton, ON LON 1N0
(519) 928-3106
scott.l.mcclinchey@sympatico.ca
For Sale: 2 yr old bulls
- **Sandy MacDougald**
Milrae Farms
Montague, PE
(902) 838-4783
- **Wallace & Patrick Milner**
Nappan, NS
patrickmilnercattle@hotmail.com
- **Dr. Lincoln Montgomery**
Buckingham, VA
- **Larry and Sarah Pedelty**
Chatfield, MN 55923
(507) 867-9041
sarahpedelty@gmail.com
Straws for US Breeders
(Collected and Shipped from Hawkeye Breeders)

- **Allan Riley**
Strathclair, MB
- **Brent Reppe**
Duluth, MN
- **Kevin Rivers**
Ingersoll, ON
- **Rose's Lincoln Reds**
Amherst, NS B4H 3Y1
(902) 667-9834
- **Sheldon Schmaltz**
Worsley, AB
- **SVF Foundation**
Sarah Bowley
Newport, RI
(401) 846-8670
sarah@svffoundation.org
- **Monte VanderVorst**
Pollock, SD
(701) 336-2621
F1 Lincoln Red/Red Angus Bulls for Sale

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