The Romanovs in North America: A Historical Account

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Some time in the future, long after I have disappeared from the scene, someone will want to go back to learn the story behind the importation of this remarkable breed into North America. This article tells how it all came about, and may also help those interested in importing new Romanov bloodlines or any other breed into North America, since most of the rules that applied then still apply today. The article also pays tribute to the many people who contributed to the successful importation of Romanovs into North America.

In 1974, a French organization called ACTIM invited me to tour France and learn about the French sheep industry. This organization is involved in promoting and commercializing science and technology. For two weeks, a group of 23 representatives of various organizations and countries toured France, looking at sheep of all sizes, shapes, colours, and purposes. The trip was exciting, and the sheep we examined were impressive. It was during this trip that I saw Romanovs for the first time. We visited a farm in southern France where only Romanovs were raised. At first glance I was not impressed at all. The sheep looked strange to me, with their black heads, the white spot on the head, and the grey wool on the body. What attracted my attention most was the sagging back and large bellies of many of the ewes. I had never seen a Romanov sheep before; all I knew about them was contained in an article published a few years earlier in a French journal about their origin and performance in Russia. Because the article was long and detailed, I had postponed reading it many times and then forgot all about it.

One unforgettable scene during the visit to that Romanov farm stuck in my mind. The breeder separated the ewes from their lambs during the day to put them on pasture for a few hours. When he brought back the ewes and mixed them with their lambs, there was quite a commotion. Each ewe searched feverishly for her lambs—all of them—before she would settle down and let them suckle. I saw ewes with two lambs running behind them looking for the missing triplet; they fed only when their mother found it. It was strange to see such devotion to one's young, and I kept wondering what happened to these lambs if their missing sib died!

I recalled this scene a year later, when I was back in Canada. I was involved in a large research project with Finnsheep, the only prolific sheep available in North America at that time. The project was going well, except for the high preweaning mortality of the lambs and the lack of mothering interest that a few Finnsheep and Finn crosses showed toward their young. The memory of the Romanov ewes searching desperately for their lambs kept flashing in my mind again and again. I went to my director and told him what I had seen in France and that I would like to import some of these sheep into Canada for my research. The director then was Dr. Camille Bernard, a fellow geneticist, who himself had imported Southdown rams from New Zealand and Dorsets from Australia for his work. His first piece of advice was simple—study the project well and generate interest among your clients, the sheep breeders. In July 1976 Canadians had a new national sheep publication, *Sheep Canada Magazine,* and I wrote my first article entitled "The Romanov" in the November issue. The article simply gave a brief description of the breed and its origin. Sure enough, it generated lots of interest among breeders; their letters and telephone calls started pouring in. The second step was to write a request, including justifications, and have my proposal considered in an official work planning document. The meeting was held in Quebec City on April 2-3, 1979, and was attended by sheep scientists and managers from all over the country. Dr. Clair Terrill, then coordinator for sheep and goat research with the United States Department of Agriculture, attended as external expert. Dr. Terrill, also a geneticist, and for a long time an advocate of sheep improvement, was sympathetic to our request and his opinion carried a lot of weight. As a result, the second recommendation from this work planning meeting, made public on June 7, 1979, read "Introduce the Romanov breed into the breeding program at Lennoxville-La Pocatière as soon as possible to increase progress. The Romanov breed would also benefit the Animal Research Centre (Ottawa) program; Lethbridge (Alberta) is also interested in acquiring

Romanovs on pasture in France.

Romanov rams. The possibility of co-operation with USDA in introducing the breed to North America should be explored."

This was the green light I had been waiting for. I wrote a memorandum to Dr. Bernard dated May 15, 1979, with justifications and a proposal for importing 10 rams and 30 Romanov ewes. Dr. Bernard sent a letter dated May 23 to Dr. J. J. Cartier, the director general for Quebec, with the proposal and a request for $35,000 to offset the cost of importation and quarantine. Dr. Cartier approved. The next step was to finance the importation and face the veterinary regulations. By then, Dr. Bernard had been transferred to Fredericton and Dr. Claude Aubé who as program specialist, assisted Dr. Cartier, took over as interim director at Lennonville and continued pushing the importation file through the various channels. He was very good at doing that. In my first memo to him, dated September 11, 1979, I revised the cost estimate upwards presenting various proposals. The cost varied from $88,000 to $39,000, depending on the number of animals involved. Dr. Aubé arranged a meeting on December 10, 1979, in Montreal, attended by directors and scientists from Agriculture Canada establishments involved in sheep research in eastern Canada. The meeting was also attended by officials from the Animal Health Division. All participants agreed on the value of the importation to Canadian sheep industry. They believed that Lennoxville should go ahead with its plans, but they wanted a report stating on why the Romanov and not any other breed was considered. Dr. Andrew Lee from the Animal Research Institute in Ottawa and I wrote that report and presented it on January 14, 1980.

It was time to find the extra money. At this time in the fiscal year, the Quebec region could not provide the full amount, and so we had to look elsewhere for additional funding. The other regions offered their support: Western Region came up with $20,000 and in return wanted several rams for the Lethbridge Station; and Central Region offered $10,000 a year until the end of the program. By February 1980 I had everything put together, and on March 4, 1980, I got the final go-ahead from Dr. LeRoux, the Assistant Deputy Minister for Research.

By then we had established contact with the Americans, who were not particularly interested in Romanovs but in another French breed, the Bleu de Maine. A full-time teacher and part-time sheep breeder named Gary Caldwell, who lives near Lennoxville, was also interested in that breed. I gave this information to Dr. Gordon Dickerson, who was in charge of the sheep program at United States Meat Animal Research Center (USMARC). Mr. Caldwell developed a project to import both breeds and to keep them on quarantine on his farm for both organizations. He hired a private consultant, Dr. W. Combs, who had been a professor of genetics at the University of Alberta, and asked him to investigate the possibilities and the cost. Unfortunately, the Bleu de Maine importation did not materialize because the price the breeders asked for was prohibitive, but Dr. Combs did play an important part in the Romanov importation, as we'll see later.

Dr. Yvon Martel became the permanent director at Lennoxville in 1980. He adopted the importation proposal and worked hard to secure the funds necessary to go ahead. Dr. Aubé resumed his duties as program specialist and continued to be a strong ally for the importation. On March 5, 1980, Dr. Martel signed an application for a permit to import 60 Romanovs—40 females and 20 males. With the confirmation by the Food Production and Inspection Branch (FP & I) the division responsible for importation, we got the regulations, a long list of what was and what was not acceptable for importing animals, and a list of tests that these animals had to pass. For sheep from France the list had the following major restrictions.

(1) The animals must be two years or older and the ewes must not be pregnant and must not be vaccinated against foot-and-mouth disease, brucellosis, or John's disease.

(2) The animals must not come from areas where vaccination against foot-and-mouth disease is practiced in France—in other words, no sheep from any area south of the line connecting Bordeaux in southern France to Geneva in Switzerland.

(3) Canadian and French veterinary officers in Brest, France must test the animals for a long list of diseases for at least 30 days before shipment. Then the sheep must be kept for at least 90 days in maximum-security quarantine facilities on the island of Grosse Ile, Quebec, and finally, for at least 60 months from the time of the first lambing in Canada, in a medium-security

The author with two of the first lambs born at Lennoxville.

quarantine with complete control by local FP & I veterinarians.

(4) The animals must be transported by boat and must not touch Canadian soil except at Grosse Ile.

(5) The importer must pay the cost of the quarantine at Brest and Grosse Ile.

We had hoped to transport the animals by air, and we had a problem finding a boat from Brest to Grosse Ile to move 60 sheep. Fortunately, the Canadian Charolais Association was organizing an importation of cattle from France for the Joint Import Breeds Advisory Committee. Its general manager, Mr. Lloyd Quantz, quickly agreed to bring our sheep along, which would reduce the cost for everyone. With transportation arranged, it was time to select the animals and make the arrangement in France. In April 1980 I was on my way to France to choose the sheep, accompanied by Mr. Eric Comeau, the superintendent at La Pocatière Experimental Farm. The task proved to be more difficult than we first thought. Our first stop was Bourge, where the French government has a sheep research station with many Romanovs. The superintendent there, Mr. Claude Lefevre, an old friend, showed us his flock but told us that he could not sell us any sheep because he had to give first priority to French sheep breeders. The same situation occurred in Toulouse, but since we could not get any sheep from the government station there anyway (south of the Bordeaux-Geneva line), we were not too disappointed.

TABLE 1 Origin of the Romanov sheep imported into Canada

Canada colour tag	French regist tattoo	No. born	Pr* record	Sire no.	Dam no.	Breeder in France	Birth date
Rams: R							
1001	IS-8103	3	5/2	IS-75462	IS-75384	INRA	12/15/77
G1001	IS-6355	2	15/6	IS-69195	IS-72371	INRA	1/17/76
O1001	SA-539	3	18/6	MR72001	SA74658	Sanders	3/ 7/78
W1001	IS-8592	3	3/1	USSR658	IS-77335	INRA	4/11/78
B1001	IS-8428	3	9/4	IS-75546	IS-75052	INRA	1/12/78
Ewes:							
R1002	D-8247	3	4/2	DJ-77021	IS-77437	Burnand	4/20/78
R1003	D-8241	3	5/2	DJ-77021	IS-77226	Burnand	4/15/78
R1004	D-8249	2	4/2	DJ-77021	IS-77292	Burnand	4/20/78
G1002	IS-7399	1	5/2	IS-75387	IS-73034	INRA	1/12/77
G1003	IS-7226	3	5/2	IS-75387	IS-74440	INRA	1/ 6/77
G1004	MC8026	3	3.18	MR752042	IN758066	Marie Cart.	2/16/78
O1002	D-8251	3	4/2	DJ-77021	IS-77180	Burnand	4/20/78
O1003	D-8257	3	5/2	DJ-77021	IS-77030	Burnand	4/21/78
O1004	IS-7310	3	9/3	IS-75393	IS-74594	INRA	1/ 9/77
W1002	D-8236	3	6/2	DJ-77021	IS-77043	Burnand	4/10/78
W1003	D-8231	3	4/2	DJ-77021	IS-77042	Burnand	4/15/78
W1004	IS-7043	2	3/1	IS-73173	IS-75392	INRA	12/23/76
B1002	IS-7044	2	8/3	IS-75182	IS-75420	INRA	12/23/76
B1003	IS-7030	2	8/3	IS-75496	IS-74544	INRA	12/12/76

INRA: French Government Station La Sapiniere, Osmoy, 18000, Bourge.
Sanders Sourch, St- Symphorien, 72480 Bernay-en-Champagne.
Favre Brun Felix Burnand, 71460 St-Gengoux-le-National.
Marie Carteel, Les Hemeries, Fondettes, 37320 Luynes.
* Pr=production of rams' mother and the ewe itself (number of lambs/number of litters).

The French Romanov breeders are part of an association called UPRA Finnois-Romanov which, as the name implies, also includes Finnsheep breeders. Their representative, Mr. J. Marchandier, met us and drove us to see sheep on commercial farms. Unfortunately, no sheep two years of age or older were available for sale. The breeders were willing to sell us ewe lambs or yearlings, but did not want to part with the ewes they had selected and kept for their own use. They asked us to come the following year when they would have what we wanted, not realizing that it was now or never—all the effort, money and transportation arrangements were already in place and might not be in place again. Many farms could not be even considered because they happened to be in the restricted area, which added to the problem. We were really frustrated. After two weeks in France we did not have even one animal eligible for importation. I phoned Dr. Martel and kept him informed of the situation. Luckily, my friend Claude Lefevre came to the rescue and informed us that he would be attending the breeders' association meeting the following month and would see what could be done.

Back home I tried to have this age restriction modified. I contacted Dr. McElheran, the chief officer for importation. His response was simple, "Be thankful it's only 24 months. If the importation were from Britain, the animals would be at least 42 months old." He added that it was also 42 months for sheep from France but because of the difficulty of finding sheep of that age, the limit was reduced to 24 months.

The breeders' meeting was held as scheduled, and I learned later of Claude Lefevre's persistent stand during that meeting. First, he urged the breeders to sacrifice some sheep from their own flocks for the importation. Second, he warned them that these sheep had to be of excellent quality or they would risk losing the entire North American market. Third, he convinced French authorities to sell us rams from government research flocks when it became apparent that breeders could not fill our requirements. In a letter dated July 4, 1980, he enclosed a list of animals available for exportation. He apologizes for not doing better. After the meeting, when Dr. Combs happened to be in France investigating the importation of the Bleu de Maine for Caldwell and the Americans, he was requested to examine the Romanov sheep available for importation. A hand-written list of 11 rams and 35 females dated July 11, was the first indication that we were actually moving toward the importation. Dr. Combs played a significant role in the Romanov importation as he ranked the animals according to his preference.

The final importation permit (No. 7-80-A6) was issued on July 25, the animals were selected, and UPRA took the responsibility of delivering the animals to Brest. UPRA also supervised the quarantine tests and paid the farmers, while we contributed the down payment for the transportation and the quarantine charges for Brest and Grosse Ile. The final contract with UPRA was signed on August 18, and we were able to relax. The cost per animal was 5000 French francs which included price, transportation, and quarantine charges at Brest. Transportation cost to Canada was $750. Finally everything seemed to move smoothly. Communication with France was facilitated by Mr. Maxime Jacob, the commercial attaché at the French Embassy in Ottawa, who made good use of the embassy's Telex machine and was an excellent link with France.

A few animals failed the tests at Brest and were returned to their breeders; 17 ewes and 7 rams passed, and they boarded the boat for Grosse Ile, Quebec, Canada. Although I searched through my files, I could not find the exact date of arrival of these sheep to Grosse Ile, probably because I only got a telephone call, not a written message, from Mr. Quantz conveying the good news.

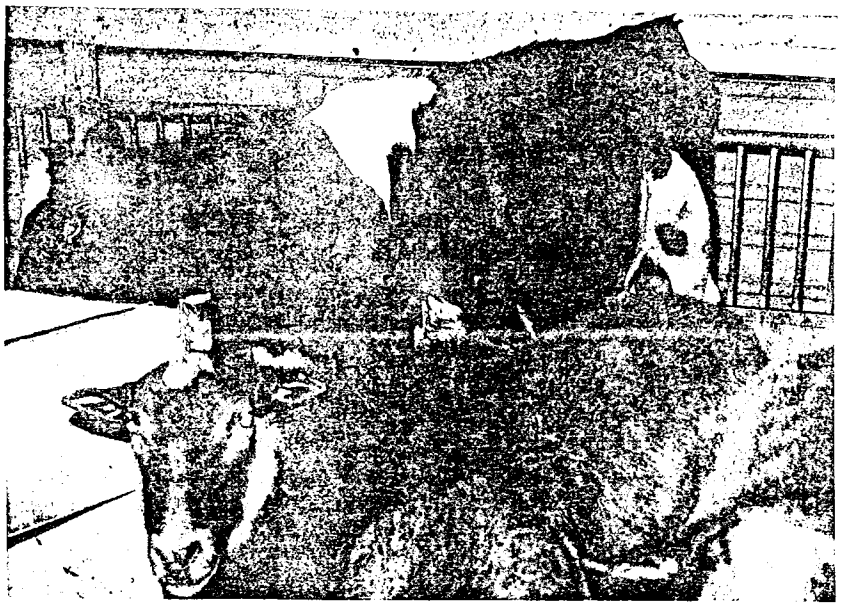
The sheep were received at Grosse Ile by Dr. R. Leclerc, a veterinarian who had vast experience with cattle. However, on March 12, 1981, I received

an urgent message to call him as soon as possible. I feared the worst, especially after the initial serious tone in his voice. He asked, "Aren't these ewes supposed to be open?" My answer was "yes." He then added, "How come we found little lambs this morning?" I was surprised, and replied that the animals probably found the cruise romantic, nature thereafter taking its course. Dr. Leclerc was dismayed by the fact that the ewe that had lambed produced quintuplets. He asked for nursing equipment and formula to feed the lambs. Grosse Ile at that time of the year is isolated by the frozen St. Lawrence River, and the only means of transportation is by air. We bought nursing bottles and milk replacer and rushed them to him the next morning. Before the week was over, three more ewes had lambed; all together we had 13 lambs. It must have been quite a scene witnessing Dr. Leclerc, who normally handles cattle weighing over half a tonne, bottle feeding tiny Romanov quintuplets! He did a wonderful job saving 12 out of the 13 lambs, delivering them in excellent condition.

On Thursday, April 9, 1981, the Romanovs set foot on continental North American soil for the first time. We washed and disinfected a truck and waited for them at a special small port just south of Quebec City. I was surprised and pleased to find many people from the agricultural media there. News of the release was publicized widely. Seeing these little lambs jumping around compensated a little for the two ewes and two rams that had to be killed at Grosse Ile when they reacted positively to the brucellosis test.

The Romanovs were transported to their first home at Lennoxville, where they had to stay for the next five years while in medium-security quarantine. According to regulations, a barn used as a quarantine must have limited access, must be locked, and should be supplied with showers. An isolated and abandoned piggery, which was previously used for performance evaluation, was the ideal place to keep the sheep. The partitions had to be raised, though, because of the Romanovs' reputation for high jumping. A team of carpenters worked continuously for two weeks to convert the piggery into a sheep barn.

We faced a serious problem. During the first three months in quarantine, the Romanovs had to come in contact with other sheep to test for a host of diseases common to ruminants. Because



Romanovs and Holstein calves sharing pens.

Marcel Morissett posing with a Romanov ewe.

of the presence of many diseases, especially maedi visna (known in United States as ovine progressive pneumonia, OPP), enzootic abortion, and paratuberculosis in local sheep, I feared that these sheep might contaminate the Romanovs, which had been certified exempt following tests at Brest and Grosse Ile. I came up with an unconventional proposal and was surprised when the veterinarians agreed to it. I suggested simply bringing calves instead of sheep in contact with the Romanovs. Calves cost a little more but could definitely not transmit sheep diseases. The Romanovs did not like this arrangement at first and for a while there were lots of fights, but fortunately no casualties. After three months the calves left and everything seemed to be going well.

As soon as the calves departed, we started the multiplication process. With only five rams we had to make a plan to avoid inbreeding as much as possible. We divided our 14 ewes into five families: four of three ewes each and one of two. Each family was assigned a colour code, and each member was given new plastic ear tags with its new number and colour. The colours we used were green, red, orange, white, and blue. Rams were also divided among the families, one ram per family. The original rams took the number 1001 and the ewes 1002, 1003, and 1004. That was the best we could do. However, tragedy soon struck. We had our first loss, and it was a big one; our blue ram virtually committed suicide. He kept knocking his head against the pen dividers until he died. He was in the company of his assigned blue females, so jealousy was ruled out. The only explanation I could give was that he might not have liked the idea of having only two females when the other rams had three. The other rams were glad to inherit his ewes and we were even more restricted. The two blue ewes changed colours and, apart from that, the rest seemed to accept their fate quietly.

The first lambing at Lennoxville occurred in January and February 1982; 12 of the original ewes gave birth to 34 lambs and a month later five of the yearlings born at Grosse Ile produced 13 lambs. From October to December 1982 six ewes had lambed again, producing 18 lambs. The Romanov explosion had started. We subjected the flock to an accelerated system of lambing every eight months. We did not use any artificial means of inducing estrus, letting everything happen naturally so that we could evaluate out-of-season breeding in Romanovs. We encountered some difficulty in the first year, in that many lambs died just at birth or soon after. The lambs were normal in all aspects, and pathology tests failed to show a cause of death. This failure was discouraging. I wondered if lack of fresh air and exercise was the cause. We built double fences around the barn and let the sheep go out during spring and summer, with the result that excessive lamb mortality disappeared.

Soon the barn that could accommodate up to 300 sheep was filled to capacity, and we had to start killing some rams to make space available for the next generation (see Table 2). The studies we completed on carcass evaluation gave us information, as well extra needed space in the barn. By then, Lethbridge Research Station had collected their rams, put the entire flock under quarantine, and started a cross-breeding project. In November 1985 they wanted some females with which to start their own flock. We flew 10 pregnant ewes to Calgary, thus solidly established the Romanov at two government stations.

The years passed quickly, and with the accelerated breeding system we

TABLE 2 Population increase of the Romanov sheep at Lennoxville 1981-86

Dates	Animals (other than lambs)	Lambs born alive	Disposals
April 81	19	12	
October 81	31		
April 82	30	28	
October 82	50	5	8 males to Lethbridge
April 83	53	38	
October 83	84	16	
April 84	83	103	11 males for feed test
October 84	148	42	25 males for feed test
April 85	166	222	7 males for feed test
October 85	368	99	4 females to Lethbridge 3 males for feed test
April 86	351	58	10 females to Lethbridge 44 males and females for carcass test

were using, there were always things to do and look forward to. The local veterinarian, the late Dr. Comptois, visited the flock regularly and we took all the necessary precautions. Yet we still encountered a disease problem. A few ewes died, after showing symptoms of increased weakness and weight loss. The pathologists suspected paratuberculosis. We were puzzled, because this disease had been tested for at Brest and Grosse Ile. At both places the animals were certified exempt. Because the disease is known to be transferred from mother to progeny during suckling, we could not explain its random occurrence. We tested all the animals repeatedly and consulted Dr. Duncan of the Animal Disease Research Institute (ADRI). He followed the pedigree of animals and tried to form family patterns. We systematically eliminated any animal suspected of carrying the disease.

Five years of quarantine passed, and it was time to remove the restrictions and start our research. The extra animals were ready for sale to the sheep industry. Even the sale of the sheep proved to be a problem. First, we had to advertise the sale from coast to coast, in both English and French. Second, to provide equal opportunity to breeders living far away from Lennoxville without burdening them with a trip to the research station, we decided to have two sales: one by closed tender, followed a week later by an open auction. Committees were formed and members discussed how these sales could be arranged, who was eligible for bidding, and what would be the size of the groups of animals for sale. Finally, it was decided that the sale would open only to Canadian breeders. Each group of sheep was to be composed of eight pregnant ewes and two rams; separate rams would also be available, with a limit of a maximum of five rams per breeder. It took us many long hours of examining pedigrees to try to match the rams with the ewes and with the progeny the ewes would be carrying. We also had to form groups of varying quality to reflect various prices; all the information was catalogued for prospective buyers. The whole process was complicated and time consuming, but finally we had everything ready for the first sale by tender.

As soon as the announcement appeared in newspapers, we started receiving applications for tender. At first the tenders were slow to arrive, which worried us for a while, but then we were

TABLE 3 Distribution of Romanov sheep in Canada

	Quebec	Ontario	Manitoba	Saskatch.	Alberta
Males	48	25	5	2	17
Females	45	52	16	8	26
Total	93	77	21	10	43

TABLE 4 List of animals sent to USMARC in Nebraska

	Orange	White	Green	Red
Females	2008	5507	2009	5332
	2005	2001	4067	5325
	5645	5514	3002	2008
	5659	4639	5102	4260
Males	5652	5498	5102/5063	5319

TABLE 5 Number of farms with Romanov sheep registered in Sheep Breeders' Registry in 1988 and 1992; number of animals registered in 1991 and 1992

Year	BC	Alta.	Sask.	Man.	Ont.	Que.	NB	NS	Nfld.	USA
1988	3	3	3	2	20	26	2	1	0	5
1992	4	15	5	7	17	35	3	3	1	123
1991	21	114	67	22	135	334	22	10	2	1134
1992	20	90	33	32	6	524	29	0	9	678

avalanched near the closing date. The tenders came from almost every province, with many breeders driving long hours to see the results. The highest bid was $7,010, and the lowest successful bid was $3,500. Those who were not successful because they bid lower paid even higher prices to buy the sheep at the auction. Twenty breeders succeeded in buying lots of males and females and are thus considered the first Romanov breeders in North America. These were two from each of Alberta and Manitoba, one from Saskatchewan, seven from Ontario, and eight from Quebec. Twenty-nine other breeders bought only rams; the highest price for a ram was $650. The proceeds of the sale were over $120,000.

We witnessed some happy moments during the sale. The most memorable involved a family from Ontario, who brought their children to see their new sheep. When they came the next morning to pick up the sheep they had a little surprise; one of their ewes lambed triplets the night before, and the children were thrilled to go home with the newly born lambs in their arms. All the buyers were satisfied with what they got. Most of the ewes lambed a few weeks later, and so the buyers were in business almost right away. The buyers had to sign a waiver but the animals were sold with a guarantee of satisfaction or replacement, although very few took advantage of this guarantee.

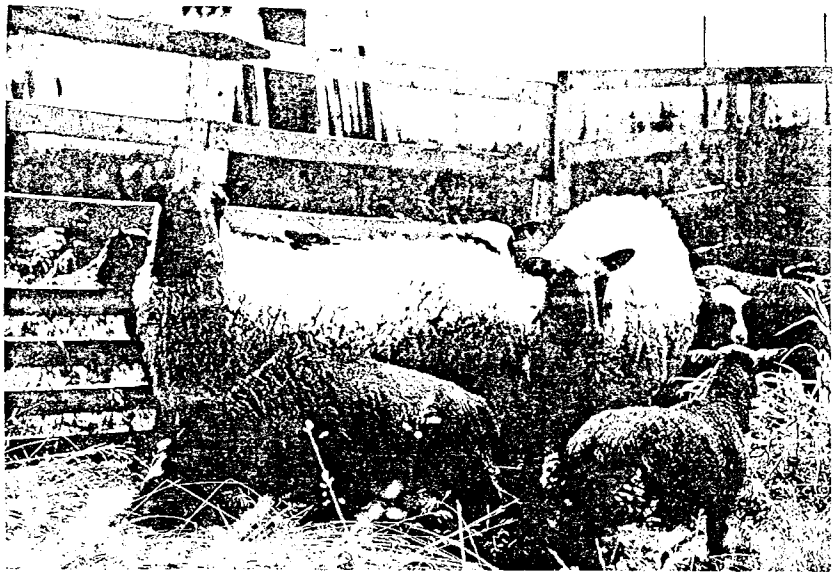
We kept a small flock of Romanovs at Lennoxville. The bulk of the flock was transferred to La Pocatière for my crossbreeding project, and even these few animals produced many surplus offspring. We had planned a second and final sale of animals from both Lennoxville and La Pocatière to satisfy the numerous breeders who contacted us. However, as soon as we made our intention known, there were protests from the breeders who already owned Romanovs. After much discussion, many memos and letters, the decision was made by Agriculture Canada to have one more final sale by tender.

The second sale took place on November 30, 1988. We had 60 ram lambs to be sold individually and 12 groups of four non-pregnant female lambs, six months older or younger. We followed the same procedures as in the first sale, and more breeders became owners of Romanovs, including some from the Maritime Provinces and British Columbia. After this sale, Romanov

breeders extended from coast to coast (Table 3). This sale generated another $40,000, which meant that the importation project was cost effective and even made a profit.

All the animals at Lennoxville were sold, and two lots were transferred to USMARC at Clay Center, Nebr. The Lennoxville Research Station had fulfilled its role in introducing and multiplying the breed. The barn was turned back to a piggery again. Two people contributed the most to the success of the Romanovs in North America. The first is Marcel Morissette, the herdsman responsible for the animals at Lennoxville. Although he had worked all his life with swine, he proved to be an excellent shepherd as well. He adopted this project and gave it his whole-hearted attention. His dedication was demonstrated when, after he had been involved in a car accident and was supposed to be away from work on prolonged sick leave, he continued to visit the flock at least once a day to make sure everything was fine. The second is my technician, Claire Corriveau, who worked hard on keeping the files straight, entering information in the computer, following pedigrees, preparing registration papers, taking blood samples, and performing many other functions too numerous to list. Everyone who now owns Romanov sheep are indebted to these two people.

The first official request from the USDA to acquire Romanovs was dated April 3, 1986. A letter from Dr. Gordon Dickerson indicated that they were waiting for us to decide when, what, and how to send the Romanovs we had promised six years earlier in exchange for the Texel the Americans were planning to import. We arranged with Dr. Lawrence Young of USMARC to send two lots of 16 pregnant ewes and four different rams to Clay Center (see list in Table 4) and to get a similar number of Finnsheep to incorporate into our crossbreeding studies. I selected the animals carefully because I knew that our reputation and the reputation of the breed was at stake. I was pleased to learn that I had made a good choice and that my American colleagues in Nebraska liked the animals they had received. The animals left Lennoxville on September 29 and arrived in Nebraska two days later, without any problem. There was one condition to this exchange, however: no Romanovs were to be sold to American breeders before two years so that Canadian breeders could sell



Romanov ewes and lambs at Lennoxville.

their animals first. We also had contact with Dr. Boylan of the University of Minnesota, who wanted us to provide him with Romanov ewes for his milking trials. Unfortunately, this deal did not work out, and Dr. Boylan purchased his Romanov from Canadian breeders.

After the animals had left for farms all over the continent, there was a growing demand for registering the Romanovs with the Canadian Sheep Breeders' Association. The first step was to make a formal request at the association's annual meeting to accept the breed. This was done and the breed was accepted. We faced a problem, many of the animals sold were the progeny of the ewes lambed at Grosse Ile, following matings on the boat. We tried to determine the parentage of these sheep by blood typing, but the results were inconclusive. Fortunately, because only Romanovs were on the boat we were allowed to register the progeny under the multiple sire provision. These sheep were registered with the sire marked "unknown Romanov ram."

The explosion of the Romanov in the United States had begun. Following my first article to an American audience published in the October 1986 issue of *The Shepherd*, the letters and phone calls poured in. I was asked to write about the breed on other magazines, and the breed was featured in many farm publications in the United States. Many American breeders claimed to be the first to import these sheep. Since these animals were exported by private Canadian breeders, there was no way I could confirm or deny the allegations. However, an examination of the names of breeders registering Romanovs with the Canadian Sheep Breeders' Association showed that only three names appeared in their registry in 1988. Table 5 shows the number of breeders with Romanov sheep registered with the Canadian Sheep Breeders' Association in 1992, illustrating clearly that the expansion in the United States was enormous. Flocks with registered animals are found in 28 states, with the highest concentration in Ohio (17), Missouri (16), Iowa (11), and Texas (11). American breeders are registering their animals with the Canadian Sheep Breeders' Association, although a serious effort is being made to form an American Romanov Association to look after the breed in the United States.

Romanovs have also been exported from Canada to Cuba, Mexico, Venezuela and Japan by the Hays International company located in Ontario. Exports from the United States to these and to other countries could have taken place, but I do not have records on this information.

In October 1989 the Romanov sheep living at La Pocatière were dealt a fatal blow. A fire killed them all, with the exception of a few rams that luckily were in a separate barn. Over 200 Romanov purebred and crossbred ewes and rams were lost in the fire. Lethbridge Research Station, which had built a parallel flock, came to the rescue and supplied La Pocatière with some of their surplus ewes. As a result of their remarkable prolificacy, the flock at La Pocatière is back and research with Romanovs is continuing.

The following list includes current research and popular articles written by scientists at Lennoxville and Lethbridge Research Stations on the Romanov sheep and on its crosses up to the publication of this account.

Scientific:

Reproductive parameters of crossbred ewe lambs sired by Romanov, Finn, Dorset and Western range rams. *Journal of Animal Science.* 62: 1555-1562, 1985.

Preliminary results of fertility, prolificacy, lamb production and carcass traits of Romanov sheep in Canada. *Proceedings of the 3rd World Congress on Genetics Applied to Livestock Production. Lincoln, Nebr.* IX: 559-564, 1986.

Reproductive traits of ewe lambs representing eight genetic types born in Winter, Spring, Summer and Fall. *Journal of Animal Science.* 65: 1195-1200, 1987.

Reproductive performance, growth and wool production of Romanov sheep in Canada. *Small Ruminant Research.* 2: 253-264, 1989.

Effect of sex, electrical stimulation and conditioning time on carcass and meat characteristics of Romanov lambs. *Food Quality and Preference.* 1: 127-132, 1989.

Reproductive performance of Romanov ewe lambs having conceived at three months of age. *Canadian Journal of Animal Science.* 70: 715-717, 1990.

Growth, fertility, prolificacy and fleece weight of Booroola, Romanov, and Finnsheep first cross and backcross with the DLS breed. *Proceedings of the 4th World Congress on Genetics Applied to Livestock Production. Edinburgh, Scotland.* XV: 369-372, 1990.

Feed efficiency, carcass characteristics, and sensory quality of lambs, with or without prolific ancestry, fed diets with different protein supplements. *Journal of Animal Science.* 70: 1365-1374, 1992.

Popular:

The Romanov. *Sheep Canada Magazine.* 1 (3): 39-41, 1976.

Bientôt au Canada, les races ovines Romanov et Bleu du Maine. *Bull. Agric.* Mars, p. 98-101, 1980.

The Romanovs are here. *Sheep Canada Magazine.* 6 (3): 3-7, 1981.

The Romanov, the prolific import. *Canada Agriculture.* 27 (2): 4-7, 1982.

Carcass characteristics of Romanov rams. *Sheep Canada Magazine.* 9 (2): 17, 1984.

Performance of Romanov sheep in Canada. *Sheep Canada Magazine.* 10 (1): 3-4, 1985.

Les moutons Romanov à Lennoxville, aprés quatre ans. *Le Bulletin des Agriculteurs.* Juin: 17-18, 1985.

The Romanov: A new breed in North American Scene. *The Shepherd.* 31 (10): 8-11, 1986.

Romanov, who needs them? *Sheep Canada Magazine.* 11 (4): 12-13.

Romanovs: A new Medicine for the American sheep industry. *The Southeastern Sheepman.* 5 (8): 10-12, 1989.

New breeds of sheep in Canada. *Agriculture Canada Publication.* 1850 E., 1990.

Romanov Facts and Myths. *The Shepherd.* 35 (6): 16-17, 1990.

Romanov crossbreeding: what about the wool? *The Shepherd.* 35 (6): 22-23.

Performance of Booroola, Romanov and Finnsheep crosses with DLS. *The Shepherd.* 36 (9): 20-23, 1991.

Evaluation of Romanov carcasses. *The Shepherd.* 37 (6): 10-12, 1992.

Protein supplementation in diets of prolific lambs. 2- Effect of breed. *The Shepherd* (in press).