

**CIHM
Microfiche
Series
(Monographs)**

**ICMH
Collection de
microfiches
(monographies)**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1998

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming are checked below.

- Coloured covers / Couverture de couleur
- Covers damaged / Couverture endommagée
- Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- Cover title missing / Le titre de couverture manque
- Coloured maps / Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- Bound with other material / Relié avec d'autres documents
- Only edition available / Seule édition disponible
- Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.
- Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from filming / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

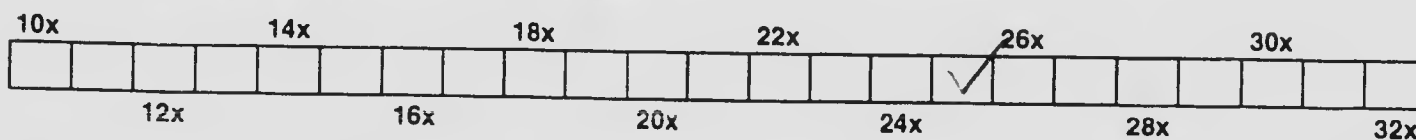
- Additional comments / Commentaires supplémentaires:

Pagination is as follows: p. [169]-178, [4].

L'institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed / Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies / Qualité inégale de l'impression
- Includes supplementary material / Comprend du matériel supplémentaire
- Pages wholly or partially obscured by errata slips, tissues, etc., have been refilmed to ensure the best possible image / Les pages totalement ou partiellement obscurcies par un feuillet d'errata, une pelure, etc., ont été filmées à nouveau de façon à obtenir la meilleure image possible.
- Opposing pages with varying colouration or discolourations are filmed twice to ensure the best possible image / Les pages s'opposant ayant des colorations variables ou des décolorations sont filmées deux fois afin d'obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below / Ce document est filmé au taux de réduction indiqué ci-dessous.



The copy filmed here has been reproduced thanks to the generosity of:

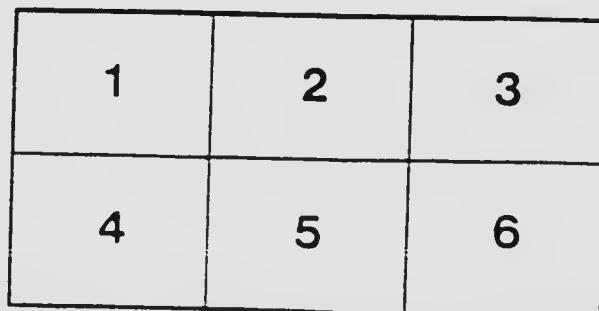
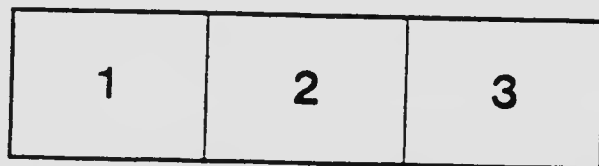
National Library of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

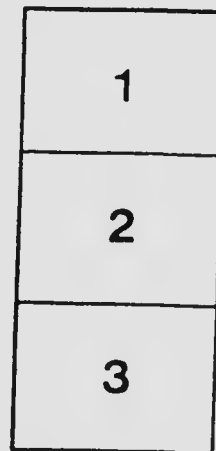
Bibliothèque nationale du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaît sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

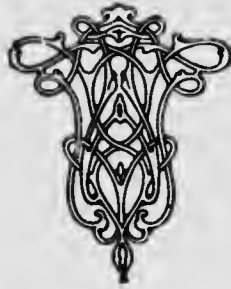


Am 25-484

613

BREEDING KARAKUL SHEEP

Dr. C. C. YOUNG



PUBLIC ARCHIVES
OF CANADA

Reprinted without change of paging from the Journal of Heredity (Organ of the American Genetic Association), Washington, D. C., Vol. V, No. 4, April, 1914.

0 900740



THE SMALL, ARABI CLASS OF KARAKUL.

These ewes are the only two good ones secured by Dr. C. C. Young in his first importation of sheep from Turkostan. They are full bloods of the Small Arabi class, which he considers one of the best for breeding purposes. The lambs beside them, from Tully senior furnish skins worth as much as \$12 each for fur. This photograph was taken by Dr. Davidson at the quarantine station, Atlanta, New Jersey, while the importation was being held to detect the possible presence of surra or some of the other Asiatic sheep diseases which are justifiably feared, and the fear of which leads to the almost total prohibition of the importation of sheep from Asia. (Frontispiece.)

See "Breeding Karakul Sheep," page 170.

BREEDING KARAKUL SHEEP

Industry Only Six Years Old in the United States, but Attracting Much Interest—
Difficulties of Securing Stock—Six Classes of Karakul Recognized
in Asia, All Owing Their Origin and Color to the Small,
Black Danadar, Now Almost Extinct.

DR. C. C. YOUNG,
Belen, Texas.

THE Karakul sheep industry is one of the most recent enterprises in live stock in the United States, but few branches of this department of breeding are attracting more attention today. I propose, therefore, to give in this paper a history of the introduction of Karakul sheep into North America, an account of the present status of the industry, and my belief as to the origin of the six classes which, in Central Asia, are recognized as making up the breeds known to the Russians as Karakul and to the Bokharans as Arabi.

The industry in the United States dates back only to 1908, when a letter of introduction, from President Roosevelt to the United States Ambassador at St. Petersburg enabled me to interest his excellency A. S. Yermaloff, ex-minister of agriculture of the Russian empire, and now a life member of his majesty's council. Through his influence I secured the cooperation of the Poltava Agricultural Society, which obtained for me fifteen head of Karakuls in Bokhara.¹

The laws of the Khanate of Bokhara prohibit the exportation of these valuable fur bearing animals by foreigners, but a few flocks have been gotten out by certain Russian societies, who have received the support of the Russian Foreign and Agricultural Departments. Although Bokhara is a quasi-dependency of Russia, the czar does not interfere in the international

administration of the emir's empire, which has an absolute monopoly of the Persian lamb and Astrakhan fur industry.

The Russian government also prohibits the importation of Karakul sheep, and as the United States government generally does not permit the importation of live stock from Asia we have found it an almost impossible task to start the industry on this continent, although our efforts extend over a period of fifteen years.

THE FIRST IMPORTATION.

In the beginning of 1909, five rams and ten ewes arrived in New York on a Saturday boat, which was scheduled to return on Monday, and had it not been for the prompt intercession of the Hon. J. A. Tawney, whom we happened to reach at the last moment, and who secured the cooperation of the federal authorities at Washington, my Karakuls would have been slaughtered or returned on the same boat.

The sheep were in quarantine for a long time, and for three months were kept in an absolutely dark barn, in order to lower their power of resistance, and to make it possible to trace in the blood the parasite of surra. When flash light photographs reached us, showing the animals to be in a very emaciated condition, we at once applied to Mr. Roosevelt, who ordered their release.

I returned in May last from a year's

¹Those interested may refer to the American Breeders' Magazine (third quarter, 1912), Literary Digest (September 30, 1911), and the New York Herald (September 10, 1911 and April 20, 1913) for further details about my importations.



A FULL-BLOOD KARAKUL RAM.

Teddy junior, shown above, is a son of Teddy senior, the famous ram of Dr. Young's first importation, who, after being kept at Wichita Falls and Middlewater, Texas, is now at Prince Edward Island. Teddy junior died at the United States Department of Agriculture's experimental farm near Washington, D. C., last year, when accidentally kicked by a zebra. (Figure 11.)

trip to Central Asia, and succeeded in bringing with me another herd consisting of seventeen Karakul sheep, one four-horned, fur-bearing Karachaev ram, and one enormous red Kalmik fat-rump ram. The quarantine regulations were less rigidly enforced, but the dipping of the sheep in cold weather cost me the life of the best ram of the lot.

When the sheep of my first importation finally reached our ranch, near Wichita Falls, Texas, we noticed that the fourteen accompanying lambs which were born in transit did not have the expected lustre and tightness of curl, the only exception being two of them, which fully measured up to our expectations.

My father, who has been raising

Bessarabian Tshushkas (grade Karakuls) near the Black Sea for a great many years, and who criticised me severely for risking thousands of dollars on a few sheep, remarked that I had probably thrown my money away, as in his opinion the climatic conditions of Bokhara were essential to the best lamb fur raising.

As the two ewes that produced the best lambs seemed in a little better physical condition than the rest, we concluded that in another year when all the sheep would be in better physical condition, the result would probably be more satisfactory.

During the entire year the sheep were well fed, and in the summer months they enjoyed the best of pasture,

but when spring came, notwithstanding the fact that the ewes had been bred to the ram which seemed in the best physical condition, the lambs did not show the improvement from a fur standpoint which we expected, except those lambs which came from the two ewes that the previous year gave us two good lambs.

FLEECES DETERIORATE.

A careful examination of the curls of the lambs of the two good ewes showed, however, that there was less lustre than the year before, and less tightness of curls, and my father remarked that we would probably find that the same Karakul sheep which gave us excellent result in Bokhara would fail us in Texas, where the climatic conditions were different, especially as far as rainfall is concerned.

The third year showed considerable improvement, especially with the two good ewes, which gave excellent results. We then began to study the original five rams and noticed that the character of the wool was not the same, and that Teddy, named in honor of Roosevelt, and another ram had coarse long wool, whereas the others had two classes of wool fibers—a long coarse gray wool, in which was hidden a fine lustreless short, reddish wool resembling microscopically that of our Merinos. To our great surprise we found that the two good ewes also were free from the fine underwool. The next year, we satisfied ourselves absolutely that the fine wool present in most of the sheep was entirely responsible for their inferior fur-producing qualities. We named sheep which contained this fine wool "Karakul Finewools" but later, when we found that this fine wool came into the strain through the admixture of some fine-wool-bearing Afghans, we changed the name to "Karakul-Afghan."

It was quite by accident that I found out that by breeding Teddy to the Karakul ewes fairly good results were obtained, especially from those ewes that had less fine wool in them; and in one case a Karakul-Afghan ewe that

had but little fine underwool, which was bred to a son of Teddy, himself not entirely free from fine wool, gave us a fair lamb, which was exhibited in Omaha in 1911 by Joseph F. Simonson.

A number of other tests finally convinced me that a very small amount of fine wool can be overcome, and considerable fine wool in ewes can be neutralized, where the ram is entirely free from the short fine underwool. Two crosses suffice to breed it out entirely.

DIFFERENCE IN CROSSES.

Where we crossed Merinos and Shropshires with Teddy, a very inferior skin was produced,² in which there was great lack of lustre, and a very imperfect curl formation, giving the skin a matty appearance, valueless from a fur standpoint, but excellent results were obtained when the same ram was bred to such of our lustrous longwools as Lincolns, and such red Persian fat-rumps as were entirely free from short wool, and possessed very coarse wool.

Where Teddy was bred to longwool ewes, free from fine wool, and the skins of the lambs were obtained the first few days after birth, they showed tight curls uniform in size and possessing the required lustre. Such half-blood skins were valued by Pretorius and Thorer, assisted by Henry Basch of New York, to whom we were referred by the Department of Agriculture, at from \$8 to \$12 per skin. In all cases where the prices ranged from \$3 to \$4 the skins showed lack of lustre and curl formation, which was easily traced to fine wool, either in the Karakul rams or grade native longwools. The Middlewater Cattle Company, which purchased all the so-called Persian sheep of Col. Charles Goodnight, found that these were valueless, except where the ewes were free from fine underwool, and only where Teddy was employed were the results satisfactory—in fact, most of the \$12 skins were half-blood Karakul-Persians.

The red Persian fatrump, erroneously called broadtail, and sometimes fattail,

²The second cross is greatly improved.



THE CURLIEST LAMB BORN.

Full-blood Karakul lamb four days old. The father is Teddy senior, the property of the Middle-water Cattle Company; the mother is a full-blood Karakul ewe, but has some fine wool in her fleece. Little of this is evident in the lamb, however, bearing out Dr. Young's contention that a small amount of fine wool in the ewe can be neutralized by a prepotent, decidedly coarse-wool ram. Note the tight curls of the lamb, extending from the tip of its nose to the end of each extremity. Photograph furnished by Joseph Simonson. (Figure 12.)

is a very hardy mutton sheep, belonging to the species of *Ovis steatopyga*, and is closely related to the Kalmik, Mongol, Khirghiz, Tshuntuk and other fat-rump (Kurdiuk)³ breeds, that have very coarse, brittle, generally red wool but possess no fur characteristics whatsoever, unless they are crossed at least once with Karakul rams of the right class. The furriers, who in their ignorance call Karakul skins (either full-bloods or grades) "Persians," "Persian Baby Lamb," "Persian Broadtail," or "Astrakhan," furnish the opportunity for certain breeders of red Persian fat-rump sheep to dispose of their stock as "Persian broadtails, the only genuine fur-bearing sheep that produce the famous Persian and Astrakhan furs." To corroborate these statements readers may consult a book on Russian breeds of sheep, issued by the Russian Imperial Department of Agriculture, also a circular recently issued by the United States Department of Agriculture.

From the two good ewes and Teddy there were born three rams, one of which was used one season by the United States Department of Agriculture on the experimental farm near Washington, D. C., and there lost his life from the kick of a zebra. Another good ram died on a ranch in Texas, from eating green alfalfa. The third ram became the property of the Middlewater Cattle Company, controlled by former Congressman Frank O. Loudon of Illinois, and was finally bought back from them by ourselves, and is now on Prince Edward Island, where we have decided to establish our Karakul industry. The fourth ram, a grandchild of Teddy, was sold by us to the University of Edinburgh, but has not yet been delivered.

KARAKULS IN AMERICA.

The father and grandfather of these four rams—Teddy, Sr., the only good ram of the first importation—is the property of the Middlewater Cattle Company, of Middlewater, Texas. The

second coarse-wool ram of the first importation, when crossed to good Lincoln ewes, gave fair results, and is today our property on Prince Edward Island.

About three years ago, the entire herd, with the exception of three Karakul fine-wools that were purchased by R. J. Rhome, of Texas, was divided equally between the Middlewater Cattle Company and myself, but I have since sold my share, telling the purchasers of the urgent need of breeding out the obnoxious fine wool strain by the introduction of new Karakul coarse-wool blood of the second importation which landed in Baltimore in March, 1913, before offering any for sale. My advice, however, was disregarded. I strongly urge breeders to be cautious in buying rams. The officials of the U. S. Department of Agriculture at Washington seem fully alive to this danger, and in a recent circular letter advise the purchase of tested rams only.

Out of the second importation, six rams and four ewes were purchased by the Hon. Charles de Bremond of New Mexico, I retaining an undivided half interest in them; the balance are the property of the writer and his associates in Charlottetown, P. E. I., Canada, where black silver foxes and other fur-bearing animals are raised with wonderful success.

We find in Central Asia six classes of Karakul⁴ sheep, all of which owe their black pigment, tendency to tight curl formation, and lustre, to the small, black, and nearly extinct D. madar sheep. These breeds are known as (1) Large Arabi or Duzbai, (2) Small Arabi, (3) Intermediate Arabi, resulting from the crossing of the above mentioned three classes, (4) Gray Shiraz, (5) Zigais (of these classes there are very few), (6) Karakul Afghans, which last class unfortunately comprise 90% of all the fur-producing sheep in Bokhara, and while possessing excellent mutton qualities and wonderful hardiness, like all of the other breeds, can hardly produce profitable fur in America, where people

³Kurdiuk is the Tartar word for "fat rump."

⁴Kara Kul, "Black Lake," is the name of a town in Turkestan, where these sheep have long been raised. It has given its name to the whole breed, through its adoption by the Russians.



A STUDY IN HEREDITY FOR FUR-LAMB PRODUCERS.

At the left is a section of the skin of a half-blood Karakul lamb a few days after birth. Its sire was the full-blood Karakul 'Teddy, the only first-class ram in the first importation; its mother was a Lincoln ewe. Note the close, tight curls, and the lustre of the hair—on these two points depends the trade value of the skin. This particular specimen was valued at \$12 by trade buyers in New York. At the right is the skin of another half-blood Karakul lamb four days old; its father was also 'Teddy, but its mother a Merino. The fine wool introduced by the Merino ewe has ruined the curl formation and lustre of the skin, making it practically worthless. From these two skins of lambs, both from the same father, it is easy to decide that a long-wool is superior to a fine-wool in crosses with Karakuls for fur production. (Figure 13.)

demand the best quality of the Persian furs, unless, as already explained, the rams belonging to this class are eliminated and the substitutes which give us the best results are chosen from the first mentioned three classes, thus enabling us to breed out the obnoxious fine-wool strain, if it exists.

Karakul-Afghan rams bred to English longwools give us a better fur than when crossed with Karakul-Afghan ewes in any event the dullness is in a large degree overcome—but unfortunately, the curls are not tight enough, and there is also a lack of uniformity in the size of the curls. The average price of these skins is \$3.50.

The following are the physical characteristics of the Duzbai Karakul. A large animal, the size of our Lincolns and even larger; large head, with very convex nose line; long, drooping, pendulous ears; some have large horns, others have none; strong, thick feet; immense broad tail, consisting of some eighteen vertebrae. At maturity it has coarse, long, gray wool on body, with coarse, stiff hair, that remains black even after maturity and with absence of fine under wool on head, face, feet and abdomen. At birth the lamb has, for about two weeks, beautiful, lustrous, black curls. It is this breed that the Russian Government bulletin, issued recently by Karpoff, mentions most prominently, speaking of our work in connection with it.

THE SMALL ARABI

The physical characteristics of the small Arabi are: It is much smaller than the Duzbai, has thin feet, small head, straight nose line, short erect ears, long, slender, triangular tail, coarse,

long, gray wool at maturity, with absence of fine underwool. At birth lambs come with beautiful, tight, black curls. Occasionally one of these animals remains black, even after maturity, and this led me to the discovery of the origin of all the Karakul breeds, which is the black, lustrous Danadar,² a few of which are still found in Khiva, Bokhara and Thibet, according to native report which I question.

Sometimes the coarse, hair-like wool, is as fine as that of our Lincolns and has great lustre, but when it lacks lustre it may be easily mistaken for Afghan short, fine wool. The difference in the length, however, always tells the story. So does the microscope. At birth the lambs come with very tight and lustrous curls.

The intermediate class is, as its name suggests, a mixture of the characteristics of the Duzbai and Small Arabi. As already mentioned, the Small Arabi is the best of these classes; but as the Duzbai is also highly satisfactory, and when bred to our native sheep gives an increase in weight and greatly improves the mutton qualities, as is shown in Armour's test, it is probably advisable to choose from these animals.

In selecting breeding animals, the essential thing is to avoid those with short, fine wool, that can be seen at a glance. The coarse, gray, long wool sticks out, and hidden in it is the short, lustreless, fine-wool, from the Afghan sheep, which I believe is the ancestor of the Merino. Generally the fine wool shows on the head, face and abdomen, and is without lustre, and brown, instead of black.

The few flocks that have been gotten

²That the Karakul breeds have not descended from the Small Arabi, as certain Russian investigators state, I am absolutely sure. It was my good luck to find in Englar, a furrier who sold the last Danadar skin 47 years ago, at which time there were no Persian Lamb, Astrakhan or Krimmer furs in the trade. F. N. Petrov, dragoman of the Russian embassy at Bokhara City, secured for me a gray Danadar skin (produced by a cross between the original black Danadar and the white Afghan fine-wool) and also sent me a photograph, made by him north of Bokhara City near the border of the Khanate of Khiva, and an examination of this skin and photograph will, I believe, convince anyone that my theory of the origin of the Karakul from the black Danadar is correct. Mr. Petrov also sent me a photograph of a supposed black Danadar at the present day; it does not convince me, however, that such an animal still exists. The tail of the sheep photographed, although not typically broad, is not long, as it should be, while the curls of the wool are excessively tight, resembling those of the Small Arabi. On my trip to Turkestan this summer I hope definitely to settle the interesting question of whether the black Danadar yet exists as a breed.

out of Bokhara in the past few years were, without exception, taken from settlements near the railway stations of Tjardjui, Kara-Kul and Bokhara City, where the chances of inbreeding are great. Practically all of the Karakuls were gotten out by representatives of Russian agricultural societies, to whom it did not seem to matter how many good, unrelated animals they could get for the meagre sum advanced them, but what number they could bring back in total, good, bad or indifferent, no matter whether inbred or not. Their chief anxiety seemed to be to avoid the reproaches of their fellow members, each of whom wanted some sheep; and unfortunately, these fellow members, although much nearer to Bokhara than our breeders, have nevertheless, just about as hazy an idea of the expense and difficulties to be overcome in the Kara-Kum desert as the average American sheep raiser of our Eastern states has.

DIFFICULTIES OF TRAVEL.

It is one thing to buy a few sheep in the oases close to the railroad, where one does not have to carry water, and quite another when it comes to fitting up a costly caravan and undertaking trips into the interior for hundreds of miles, carrying numberless *burdiuks* (water sacks), provisions, ammunition, bedding, utensils, and employing rather expensive subordinate officials, who can make a native sell one the sheep he desires, *providing one is fortunate enough to know a good Karakul when he sees one*. I have seen practically every sheep that has been gotten out of Bokhara into European Russia, and the good animals represent a negligible quantity indeed. When I was asked to separate the largest herd in European Russia, numbering nearly three thousand, I found 112 head among them that were more or less free from fine wool; but they were too closely inbred, which makes the wool fibre very fine, resulting in a cheap, open-curved, instead of tight-curved, high-priced skin. From this, it must be evident that European Russia at present is hardly the proper place to buy unrelated breeding animals, and as for those few Karakuls that have been gotten into Germany and

Austria, I am sorry to say that they do not even deserve mentioning.

It is the practice of the Russian societies to raffle off all specimens imported, which makes it impossible for their members to put even a short distance between one ram and another. In fairness, however, I must state that last year Messrs. Karpoff and Ganko made the first effort really worth mentioning, when they went as far as to the steppes Djom-Boss in the district of Kerki, some 200 miles from Tjardjui, and brought out quite a flock; but most of them had the undesirable short underwool and again, they were raffled off amongst the members of the Poltava Agricultural Society. I was surprised when I found that practically none of Russia's breeders understood the danger due to the presence of fine wool.

In Mr. Ganko's excellent report, delivered to the Russian Sheep Congress at Moscow last October, which I attended, no mention was made of this all important fact until I reported the result of my tests with finewool American sheep.

OBSTACLES TO FOREIGNERS.

Providing a Russian subject can secure permission from the Russian Department of Agriculture, and the Department of Foreign Affairs gives its consent, and providing his majesty the emir permits him to enter the Khanate, it is only a matter of being properly financed, and a limited number of Karakuls can be obtained, although, after all, the proper *Jigit* (an official of the district governor, who can do what he pleases with his subjects) is indispensable.

A foreigner can not get out Karakul sheep for the following reasons: (1) Even after securing permission from the Russian war minister to enter west Turkestan, which often means weeks of delay in St. Petersburg, he is not permitted to go very far away from the railway station, and he absolutely can not go to Takta Bazar, Kushk, Kerki, Termez or Karshi.

(2) The emir does not permit a foreigner to export Karakul sheep, and should he get them into European

Russia through a third party, he can not get them out lawfully.

(3) Most European countries prohibit the importation of live stock from Asia, on account of certain diseases, and especially is that true of England, the United States and Canada, where it is nearly impossible to secure a permit to land them. Even where an exception is made for purely experimental or exhibition purposes, the most rigid quarantine is imposed, lasting for months. Those foreigners who have travelled in Russia with proper credentials showing them to be interested in scientific research work will testify to the great courtesies shown them by Russian officials, and this explains why I have been able to get out a few head of Karakuls. But on account of the mistakes which I made in my first and, to some extent, in my second importation (for I suspect that some of the animals in the latter were related, after all), I hope to secure permission to export a few more sheep direct from Bokhara. During my last visit there, I did not learn certain facts about the source of the Karakuls which I bought until after I had used the permit given me by the U. S. Department of Agriculture, and had already forwarded to America the sheep which I

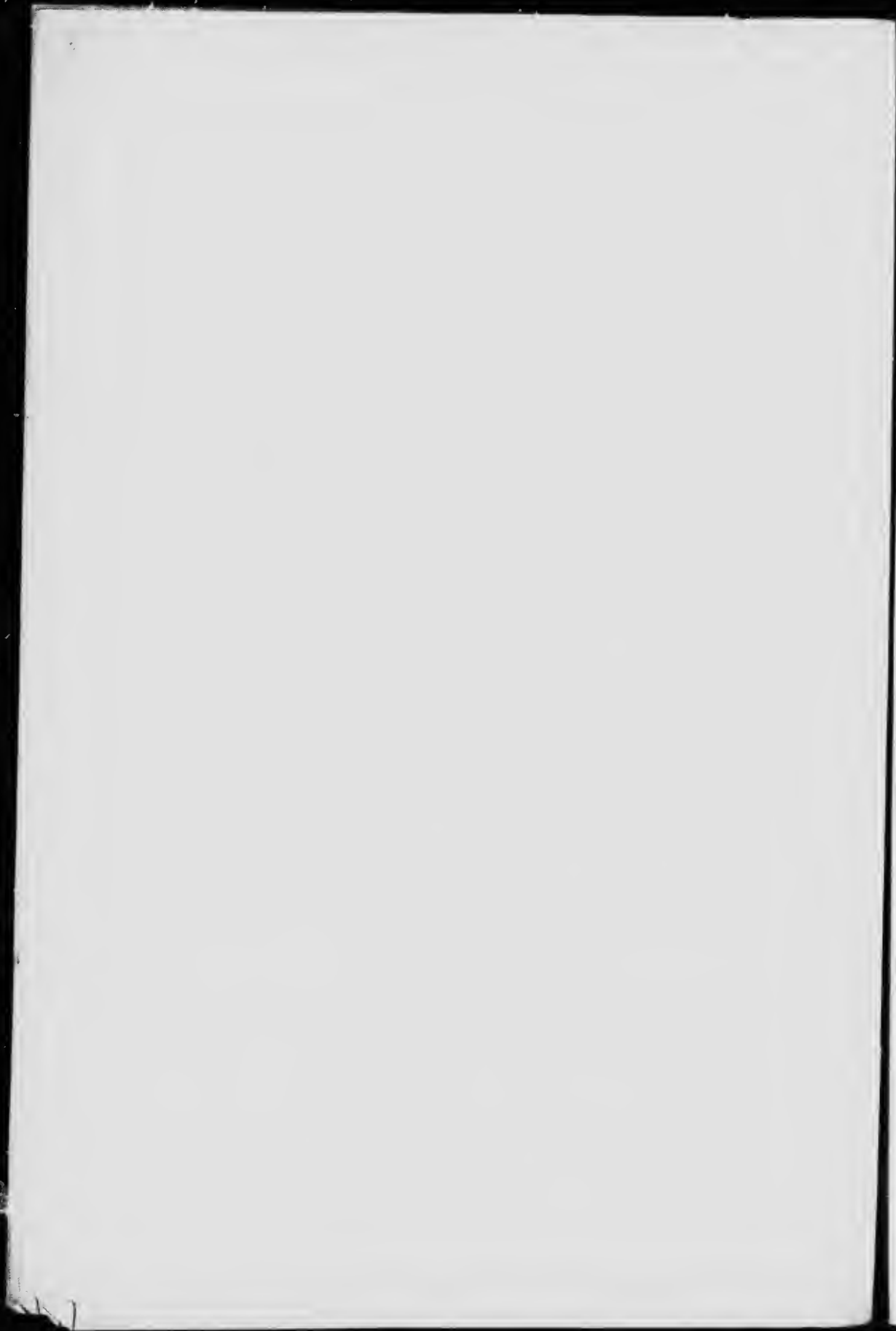
later discovered might possibly be inbred, in some cases at least.

I expect soon to leave for a third trip to Asia, where I hope to secure permission from the emir to export a few more sheep for scientific experiments, and I trust that this time I will be permitted to make my own selections over a vast area, thus being able to put such a large distance between the source of one animal and another, that the chance of getting related stock will be remote and negligible. Of course, as a preliminary, everything depends on my getting a permit⁶ from the U. S. Department of Agriculture to bring the sheep into this country—a privilege that has already been denied to me by the chief medical officer of the Canadian quarantine department at Ottawa.

Though not permitted to enter the forbidden zone of Bokhara and Transcasbia last March, I hope to be able to do so this time, as it is the opinion of the Russian Department of Justice that since I became naturalized in America without the permission of the Russian government, I am, technically, still a Russian citizen, who needs but return with a Russian passport in order to enjoy all the rights and privileges of Russian citizenship.

⁶Dr. Young secured the desired permit and left for Asia in February, after completing this paper. —THE EDITOR.

n-
ip
s-
re
I
d
st
e
e
of
d
,
a
f
s
y
l
e
s
e



← THE ←
Dr. C. C. Young Karakul Sheep Co.
— OF — Limited

CHARLOTTETOWN, PRINCE EDWARD ISLAND, CANADA

INCORPORATED, Jan. 1914 under the laws of P. E. I.

CAPITAL, \$150,000. or 1500 shares of \$100. each

PAID UP CAPITAL, \$100,000.

TREASURY STOCK, \$50,000.

The Officers and Shareholders are as follows:

DR. C. C. YOUNG, Charlottetown, P. E. I.
Medical Doctor and Sheep Inspector. *Inspector*

JOHN R. DINNIS Charlottetown, P. E. I.
Fur Farmer and Capitalist.

DR. STEPHEN R. JENKINS, Charlottetown, P. E. I.
Medical Doctor and Farmer.

WILLIAM L. OWEN, Charlottetown, P. E. I.
Farmer and Capitalist.

W. HARRY TIDMARSH, Charlottetown, P. E. I.
Manufacturers' Agent.

FRANKLIN BOYER, Charlottetown, P. E. I.
Fur Farmer and Capitalist.

DR. ALEX. Mc NEILL, Summerside, P. E. I.
Medical Doctor and Fur Farmer.

SHEPHERD ALLEN, Summerside, P. E. I.
Capitalist and Fur Farmer.

ALBERT C. SAUNDERS, Summerside, P. E. I.
Lawyer and Solicitor of the Company.

J. WALTER JONES, Charlottetown, P. E. I.
Farmer and Author.
Secretary of the Company.

Treasury Stock

At a meeting of the directors held on January 12th, 1914 it was decided to issue the treasury stock in order to finance several undertakings. The major part of the proceeds of the sale will be spent in an attempt to secure a third importation from Asia and the purchase of hundreds of ewes of the most desirable breeds as well as ranch lands will probably be undertaken. The corporation will also pay the cost of ranching the sheep now in possession subsequent to November 30th, 1913.

About one half of the treasury stock is already subscribed at this date March 20th, 1914. The remainder will be allotted on receipt of application preferably to the subscribers of ten or more shares.

The sale of treasury stock is not a reflation. The proceeds of the sale will be represented by increased assets to be purchased by the Company.

The Assets

1. A practical monopoly of the high-grade Karakul Sheep in America. Six of the seven good male blood lines are already in the possession of the Company.
2. Eighteen full blood Karakul rams, twenty six full blood Karakul ewes, three Karakul-Persian ewes, ten pure bred Highland ewes, two hundred and ninety Lincoln ewes, sixty Lincoln, Cotswold and Leicester grade ewes.
3. Ten full blood lambs born in 1914 before the date March 15, as well as upwards of three hundred more full blood and half blood lambs to be born before July 1914.
4. The sole use of the name Dr. C. C. Young. Dr. Young was and is the only importer of Karakul sheep in to America, and he is bonded to import solely for the Dr. C. C. Young Karakul Sheep Company, Limited.

Karakul Sheep and Fur

Karakul Sheep are about the size of ordinary farm sheep and appear to be much hardier in this climate. Their lambs are coal black and curly, with the curls in waves in the best specimens, and lustrous. The lambs if they are designed for fur, are killed when the fur is considered to be at its best usually sometime within the first ten days. The skins are dried, baled in lots of a hundred or more,—fur side to fur side, and are sent to the fur dresser and dyer. When they are placed for sale on the market they are named "Persian lamb" by the trade. If the lamb was born prematurely, or dead the skins are known to the trade as broadtail "or" Baby Lamb" and are frequently worth \$20.00 each wholesale or twice as much as the wholesale price of Persian Lamb skins.

A poorer grade of fur which has often large or loose curls and sometimes is not curled at all is called "Astrakhan." This fur is produced by fine wool parents which have a percentage of Karakul blood in them. Many so-called full blood Karakuls are merely fine wools and produce only Astrakhan fur.

If the lamb-skins are grey they are called "Krimmer" Krimmer fur is dressed but not dyed, Astrakhan, Persian Lamb and Broadtail furs are dyed—not to colour them, because they are almost all black at birth,—but to fix the colour so that it will not fade.

Volume of Trade

Some authorities have stated that the United States imports \$14,000,000.00 worth of fur sheep skins yearly. One New York house imports \$250,000.00 worth. It is estimated that Canada uses 30 per cent as much fur as the United States. Persian Lamb, Astrachan and Krimmer are used by both sexes and are recognized as the most serviceable and beautiful furs for both men and women that can be purchased. The delicate and beautiful Baby Lamb fur is used for open cloaks and ranks among the world's precious furs.

The furs produced by the Karakul sheep are as valuable yearly as all the Silver Foxes, Cross Foxes, Mink, Otter and Skunk combined, yet they are produced from a fully domesticated animal which costs no more to feed than common sheep. They live on grass and hay, yet the skins of each one will average higher prices than Mink skins, and some as much as Otter skins.

Profits in Selling Breeding Stock

The Dr. C. C. Young Karakul Sheep Company does not have to guess at the demand for breeding animals. Already scores of requests are on file. There is more interest in this breed of sheep in America than in any other breed of live stock, and therefore the parent company should be in a position to maintain itself as head quarters for Karakul Sheep for America and Great Britain.

Of the two importations brought over in 1908 and 1913 the Dr. C. C. Young Karakul Sheep Company owns all the rams of the first importation which are now living, namely, Teddy, Fasset and Tawney. While Tawney is a fine wool and is not valuable, Teddy is so valuable that some other self-styled producers of Persian Lamb fur have been saying that they own Teddy and have adopted the name for some of their grade Karakul and fine wool rams. The Secretary of the Dr. C. C. Young Karakul Sheep Company will be pleased to prove that Teddy is in his possession and may be seen at Sunbury Farm near Charlottetown.

All the second importation except those in possession of a New Mexico rancher are the property of the Dr. C. C. Young Karakul Sheep Company. They comprise the most valuable part of the flock and include such sires as Vaska, Nezakaev, Poltava, Baron von-der-Lannetz.

Such rams as the above are not for sale and no reasonable price would tempt the company to part with them. It is anticipated that rams sired by them will fetch \$2500.00 each, while half blood rams of Karakul-Lincoln cross will fetch \$200.00 each on an average.

Half-Blood Rams Produce Fur

A fact of outstanding importance requires to be emphasized. It is this; the rams resulting from a cross of Karakul on Lincoln, Costwold or other coarse-wool sheep will again produce persian lamb fur in the next cross with coarse-wool sheep. That is, it requires only 25 per cent of Karakul blood mixed into our common coarse-wool sheep to give good persian lamb skins. Practically every lamb will be born coal black, curly and lustrous. The skins of such lambs will be twice as valuable as the meat of 6 months old lambs of the common breeds.

How to Secure an Interest in the Company

Send an application for the number of shares desired. In order to make certain of securing an allotment, cash should accompany the order or a deposit, with an order to make draft for the balance. Allotments of fewer than ten shares to one party are not preferred, neither is it desired to sell stock to a Silver Fox Company to hold. In case the stock cannot be allotted the money advanced will be returned immediately.

Address all correspondence to,

J. WALTER JONES, Secretary

References--Bank of Nova Scotia, Charlottetown, P. E. I.

CHARLOTTETOWN, P. E. I.



