

REGISTRATION PURSUANT TO SECTION 49 OF
THE ENVIRONMENTAL PROTECTION ACT

NAME OF UNDERTAKING: **Mink Farm – Great Northern Peninsula Highway, Route 430 Deer Lake area**

PROPOSER:

(i) *Name of Corporate Body:* **DTK Agriculture Ltd.**

(ii) *Address:* **7 Garden Road
Deer Lake, NL
A8A 1L1**

(iii) *Chief Executive Officer:* **Mr. David Healey
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(iv) *Principal Contact:* **Mr. David Healey
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THE UNDERTAKING:

(i) *Nature of the Undertaking:*

Proposed development of a mink farm at a site on Route 430 in the municipality of Reidsville, north of Deer Lake, NL. A positive upswing in the fur industry creates an opportune time to enter into the market. The farm will produce high quality mink varieties for sale to auction houses in North America. Initial construction is scheduled to commence in summer 2006 and all phases to be complete by early summer 2009. Farm construction is proposed to commence in timely fashion and adhere to all “Environmental Farm practices and Guidelines for livestock producers in Newfoundland and Labrador”.

The project proponent, Mr. David Healey, is a new entrant into mink farming but has hands on experience on an operational farm in P.E.I. He has done intense research on the fur industry, the code of practice for the care and handling of farm animals and also the life cycle of the mink.

During his time working on the farm, he has experienced the full extent of the breeding season of the mink, including the intense record keeping which must be maintained through the minks’ life, the sometimes tricky task of recognizing a real breeding. Mr. Healey also assisted in the testing for male testicular sizing, as well as all other aspects of daily farm activity such as feeding, manure removal and spreading, cage maintenance, cleaning of the nesting boxes and feed cart, building nests for the kits, litter equalization management, blood testing, and immunization. As Mr. Healey assisted in the breeding season of 5000 female mink, he is very comfortable in the management and handling of mink. Time spent on the farm has proven to be an excellent learning opportunity to realize the hard work and dedication required for the successful operation and management of a mink farm. With his experience, and resources from his colleagues in the mink industry he is capable of successfully operating his own mink ranch.

Mr. David Healey is a qualified commercial pilot and flight instructor. He has a background in business management and has recently been trained in mink farming in Prince Edward Island.

(ii) *Purpose/Rationale/Need for the Undertaking:*

The proponent, Mr. David Healey sees a potential for industry growth in the province as well as local employment opportunities. The province has the proper climate for mink production as well as offering potential advantages in land, feed and labour availability and cost.

DESCRIPTION OF THE UNDERTAKING:

Geographical Location:

The proposed site of approximately 117 acres is located in the municipality of Reidsville, NL. Reidsville is situated approximately 7 km north of Deer Lake. The property fronts on to the Great Northern Peninsula Highway, Route 430. Maps of the proposed site are attached in Appendix 1. These maps include an overall site location map, an aerial photo of the site and a detailed site map of the planned farm infrastructure.

The land base is currently partially cleared, approximately two acres in two fields, with the remainder in a wooded state. The site is relatively flat.

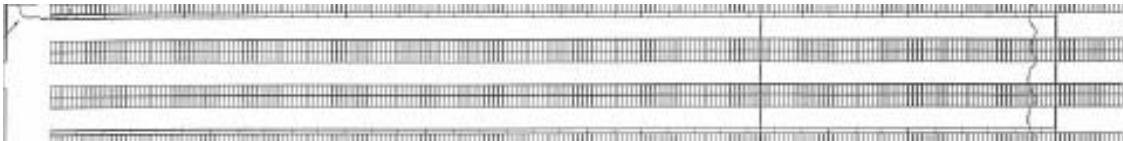
Physical Features:

Physical requirements for the mink farm to be added to the site include mink sheds, 6 in total to house 4000 females and kits, a pelting shed, temporary manure storage, a storage shed/staff room, cold storage/chill room and access roads. Initially, a total area of 25 acres will be cleared and levelled to encompass the structures in the first year. An additional 25 acres will be cleared to meet the farm expansion plan in three phases over the next 24 months. The main farm area will be situated on the north-eastern portion of the property with a buffer to limit exposure to environment and the local population. The remainder of the land will be used for future expansion. Each of the physical features is further described below:

Mink Sheds

The proposed mink sheds for this farm will be 400 ft long by 40 ft wide to a total of 6 sheds. Each shed will hold 4 rows of mink cages. The sheds are to be constructed using simple post and beam wooden construction, with galvanized aluminium sheeting attached for roofing, as well as fibreglass skylights and a plastic fabrene material used on the exterior sides to allow natural light penetration. The walls of the sheds will penetrate one foot into the soil to prevent encroachment by pests/animals and mink escapement.

An automatic watering system will be installed in the sheds such that the mink will have access to a continuous water supply (see appendix 2). An artesian well will be drilled to provide the necessary water requirements.



Cage layout

Pelting Shed

One pelting shed of 24' x 32' will be constructed to provide for a small pelting operation. Pelting equipment to be used will consist of equipment to be obtained as described in Appendix 2.

Manure Storage

A temporary manure storage shed of 40' x 80' will be constructed consisting of a concrete platform and bucking wall. The structure will have a roof to minimize exposure of the pile to the elements (wind, rain and sun). This facility will be constructed and located in keeping with the Environmental Guidelines for Livestock Producers. The facility will provide for temporary storage only. Ultimately, the manure will be made available to local farmers for spreading, used on fields to be developed by the proponent, or possibly made available to a local waste management facility.

Storage/Auxiliary Shed

One shed of 72' x 48' will be constructed on site to provide storage space for equipment and materials as well as provide a small staff room/facilities.

Cold Storage/Chill Room

One building of 20' x 30' will be constructed to provide a cold storage room and a chill room to store frozen pelts and feed.

Roads

Access to the site from Route 430 will be gained using existing access roads. The existing access roads contain a culvert to allow crossing of the existing ditch.

Additional upgrades are required to access the proposed site. On farm access will be constructed and extended as required.

- ***Construction***

Project construction is projected to occur from summer 2006 to summer 2010. Construction will be undertaken in a staged approach to meet the requirements of the expanding farm. Following are the projected construction requirements for each phase:

2006

Layout area for buildings and access
Clear 25 acres of land
Develop access around cleared land
Install electrical to site
Build barns (2)
Build manure storage shed
Build storage shed
Install septic tank and tile field for Lunch room and washrooms.
Build cages
Buy Farm Tractor
Buy Forklift
Buy Feed Cart
Operating cost for one year

2007

Layout area for buildings and access
Clear 25 acres of land
Develop access around cleared land
Install electrical to site
Build barns (4)
Build cold storage
Build cages
Build pelting shed
Purchase processing equipment
Buy Female Mink Breeders 4000
Buy Male Mink Breeders 800
Operating cost for one year

2008

Clear 25 acres of land
Develop access around cleared land
Build barns (3)
Increase breed stock by 2000
Install electrical to site
Operating cost for one year

2009

Clear 25 acres of land
Develop access around cleared land
Install electrical to site
Build barns (3)
Increase breed stock by 2000
Operating cost for one year

2010

Develop access around cleared land
Install electrical to site
Build barns (3)
Increase breed stock by 2000
Operating cost for one year

The main site has been selected to minimize clearing and levelling requirements. Construction involves simple structures with low potential for environmental impact.

Disturbance to waterways are nil.

Any and all solid waste from the construction site will be removed by the contractor and disposed of in an environmentally friendly fashion, recycling when possible.

- *Operation:*

Farm

The process of farming mink is closely tied to the natural breeding cycle of the animal. The basics of the mink year are outlined in the following figure, which was prepared for the U.S. mink industry. For mink farming in Newfoundland and Labrador, the primary seasons are as follows:

- Early March – breeding commences
- Mid April – May – whelping; female breeders start having litters, which range from 3 to 13 kits, with 4 or five being the average.
- Late June – Early July – weaning; separating kits from their mothers and starting the kits on solid food when they are between six and eight weeks old.
- August – November/December – growth and furring; the focus is on the kits growth and proper fur development.
- November – Early December – grading and pelting; prior to pelting, minks are graded in such a manner that the best performers can be retained as breeding stock.

JAN.	FEB.	MAR.	APR.
		BREEDING	
MAY	JUNE	JULY	AUG.
WHELPING		WEANING & SEPARATING	GROWTH & FURRING
SEPT.	OCT.	NOV.	DEC.
		GRADING	
			PELTING
	GROWTH & FURRING		

Mink Farm Season

DTK Agriculture Ltd. plans to purchase 4000 disease free, high quality Mahoney female kits and 800 males later that year, to be transferred from Prince Edward Island in early spring 2007. On average, mink produce between four to five offspring. In 2008, the projected kit production will be approximately 20,000 kits. Over the following 5 years the operation will expand to meet the need of the markets.

This proposed operation will consist of the farm and pelting operations. Feed will be obtained from an external supplier.

Pelting

The following is a brief description of the pelting process. Greater detail on this process and the types of equipment used has been provided in Appendix 2.

After the grading process on the farm, where the best and the biggest are retained as breeders, the remaining mink are sent for pelting in November/December of each year. The mink are euthanized humanely in a Killing Trolley and then placed on a Body Trolley in preparation for the pelting process. The process starts by placing the mink in a Body Drum, with sawdust, to clean them and prepare them for skinning. The skinning process begins with the removal of the tail and legs and with the loosening of the skin using a Paw and leg Spreader. A Skinning Machine will then be used to assist in separating the pelt from the body.

After skinning, the fat and grease must be removed from the pelts using a Fleshing Machine. After this is removed the pelts are placed in another drum with sawdust to remove all the remaining grease. The pelts are then ready to be placed on Pin-Boards, using a Pinning Machine which helps to stretch the pelts to the optimal size, then stapling them to the Board. Once on the Board, the pelts are ready to enter the drying process.

The critical drying process involves hanging the pelts in an environmentally controlled room, at 17-18 degrees Celsius and 55-58% humidity, for three to four days, where each pelt is hung on a tube which blows air down through the pelt to dry it in a controlled manner. After drying the pelts are taken off the Boards with a Staple and Board Remover. The pelts are then complete and transported to the stockroom where they are placed on hangers to maintain their shape and structure. The stockroom and pelts are maintained at a temperature of 10 degrees Celsius and 75% humidity until the time of shipping to the auction house.

Prior to shipping farmers must tag their mink with barcodes using a Labelling machine, to distinguish them at the auction house. The pelts are then packed in boxes and picked up by the auction company.

The pelting operation will include the production of pelts from DTK Agriculture Ltd. farming operations. Initially, the pelts at this operation will be frozen for shipping. Peak production in the first five years will be approximately 50,000 pelts.

Waste Production/Handling

Waste production from a mink farm consists of one primary waste stream, manure and urine from the mink, which is mixed with wood shavings and straw from the nest boxes. Manure production varies with the time of year, with the lower volumes produced from late-November through May, as the farm is populated only with breeding stock, and larger and increasing volumes produced from June through November, as the kits grow. The mixing of the manure/urine with the wood shaving/straw produces a very manageable solid waste product. The projected maximum waste production for a 10,000 female mink farm is as follows:

- Manure 1361 tonnes
- Shavings/Straw 816 tonnes

Pelting

The waste stream from the pelting operation will include the mink carcasses, the fat/grease collected in the pelting process and the sawdust used during the pelting process. The projected peak waste production, when the farm reaches 10,000 female breeders, is projected as follows:

- Carcass/fat 70 tonnes
- Sawdust 10 tonnes (used in pelting process to dry skins)

Waste Collection

Farm

With all the animals held in cages, the manure and urine collects directly under these cages, in the sheds. In a vast majority of cases, the mink return to the same spot to deposit their waste. The straw and/or wood shavings that are used in the nest boxes, mixes with the manure/urine and falls through the cage, producing a more manageable waste product. For hygiene purposes and to reduce odour, waste will be collected from the manure collection system on a regular daily basis.

Initially waste is to be collected manually using a wheelbarrow from the manure collection system. A small articulating tractor, which is capable of operating in the sheds, will be purchased as the number of livestock increases.

Pelting

Carcasses are collected during the skinning process. The fat/grease is automatically collected from the fleshing machines into barrels, the sawdust used in the drumming process is changed on a regular basis.

Waste Handling and Disposal

Farm

The handling and disposal of the waste from the mink will be undertaken utilizing approved manure management strategies. The primary handling and disposal methodologies to be used will include short-term stockpiling, land application, and potentially collection by a local waste management company.

Short-term Stockpiling

Stockpiling of manure will only take place on a short-term basis, to accumulate for land application. Stockpiling and spreading will be done in an approved manner and at a site on the farm of sufficient distance and location from the sheds and wells to ensure no risk of contamination.

Land Application

A total of 150 female mink (plus kits and males) per acre is the recommended maximum in Newfoundland and Labrador for manure spreading. As such, for a 10,000 female farm the recommended minimum acreage for manure spreading would be 66.66 acres. The site has a land base of 117 acres, providing more than sufficient area for manure spreading. In addition, manure will be made available to other local farmers for spreading on their fields.

Pelting

The handling and disposal of the waste from the pelting operation will use approved management strategies. The primary method of handling and disposal will be composting. For the composting of the carcasses, the "Government Service Centre Guide for the Disposal of Dead Animals within the Province of

“Newfoundland and Labrador” will be followed, i.e. disposal areas will be a minimum of 150 metres from the well water supply, with at least 0.6 metres of fill material. The excavation site will be at least 0.3 metres from the groundwater table.

- *Occupations:*

The proposed farm will require a projected 12 employees, in addition to the proponent during the construction phase. This will include one site foreman and the remainder as general labourers. The operations phase will require 3 to 4 full-time personnel in the first year, growing to 6 to 8 full-time personnel by the fifth year.

- *Project-Related Documents*

N/A

APPROVAL OF THE UNDERTAKING

Approval required for the construction and operations phases for DTK Agriculture Ltd. include the following:

- Crown Lands – Department of Environment and Conservation, Lands Branch – Application submitted for Lease #128730
- Waste Management Certificate – Government Services Centre – Approval required prior to 2006 operations

SCHEDULE:

The initial land development and construction phase for this project must be started by summer 2006. Land clearing and levelling, the construction of two four row sheds, watering system installation, and temporary manure storage shelter and cold storage/chill room will be completed before the arrival of the breeding stock in spring 2007.

FUNDING:

DTK Agriculture Ltd. plans to apply for assistance through the Atlantic Canada Opportunities Agency, the Agricultural Policy Framework (APF), the Department of Innovation, Trade and Rural Development, the Farm Credit Corporation, Foreign Investment and BDC. No approvals have been granted to date.

Mr. David Healey
President

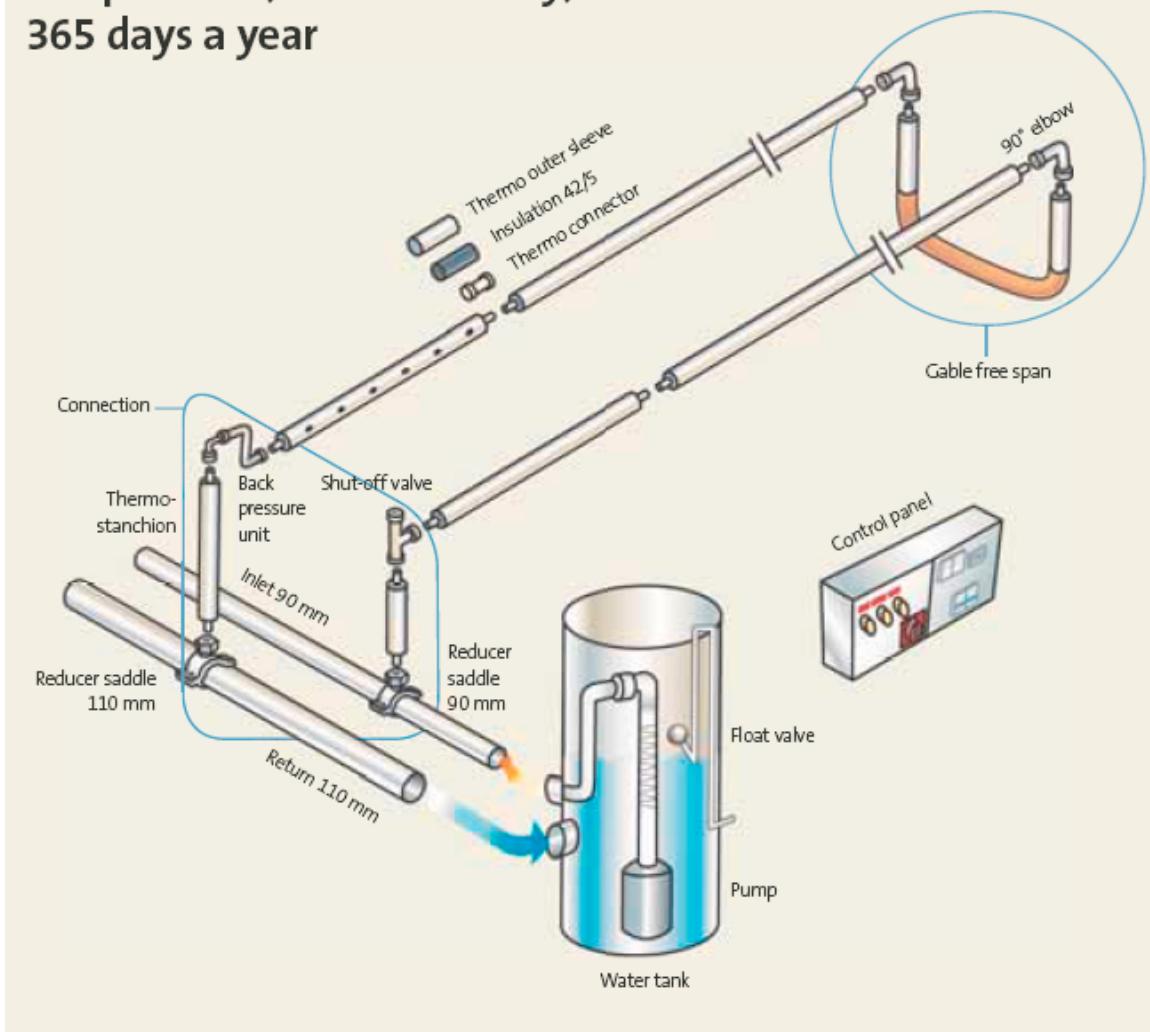
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Appendix 1

Site Maps

Appendix 2
Automatic Watering System

**Fresh water at the right
temperature, 24 hours a day,
365 days a year**



Appendix 3

Pelting Equipment

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Pelting Plant Equipment

Following is a description of the type of equipment used in the pelting process:

- **Killing Trolley:** After the mink are graded at the farm, those selected for pelting are placed in the Killing Trolleys to be euthanized. See Figure 1.



Fig 1

- **Body Trolleys:** Once removed from the Killing Trolleys the mink are placed on the Body Trolleys while waiting for the pelting process to begin. See figure 2.



Fig 2

- **Body Drum:** The Body Drum prepares the mink for the skinning process. The bodies are tumbled in the drum with sawdust to remove dirt/grease from the pelts. See Figure 3.



Fig 3

- **Tail and Leg Removers:** The Tail and Leg Removers are used to cut off the mink's tail and legs prior to skinning. See Figure 4.



Fig 4

- **Paw and Leg Spreaders:** The Paw and Leg Spreaders are used in the final step before skinning. They loosen the skin from the body to make the skinning process easier and less likely to damage the pelt. See Figure 5.

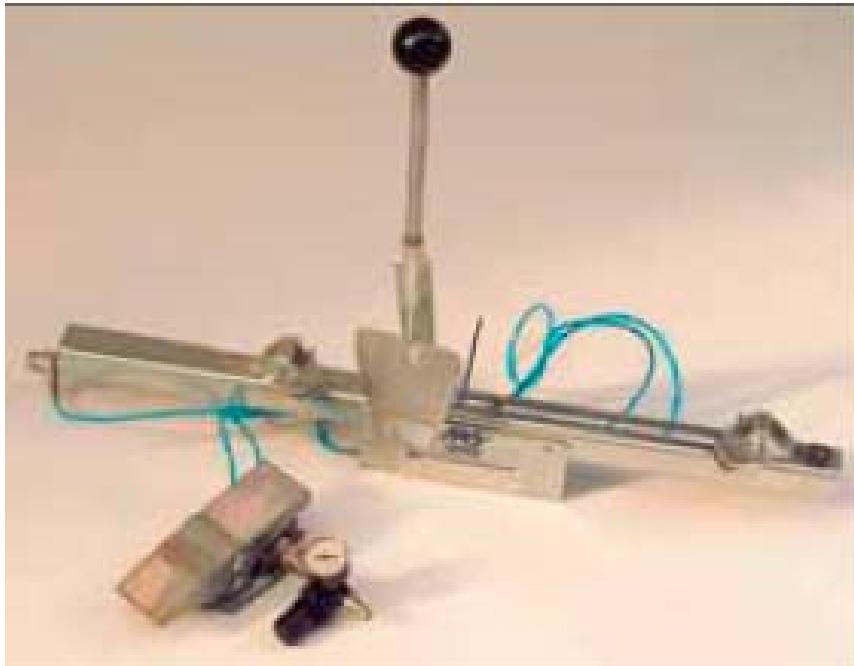


Fig 5

- **Skinning Machines:** Skinning Machines are used to help in the process of separating the skin from the body. See Figure 6.

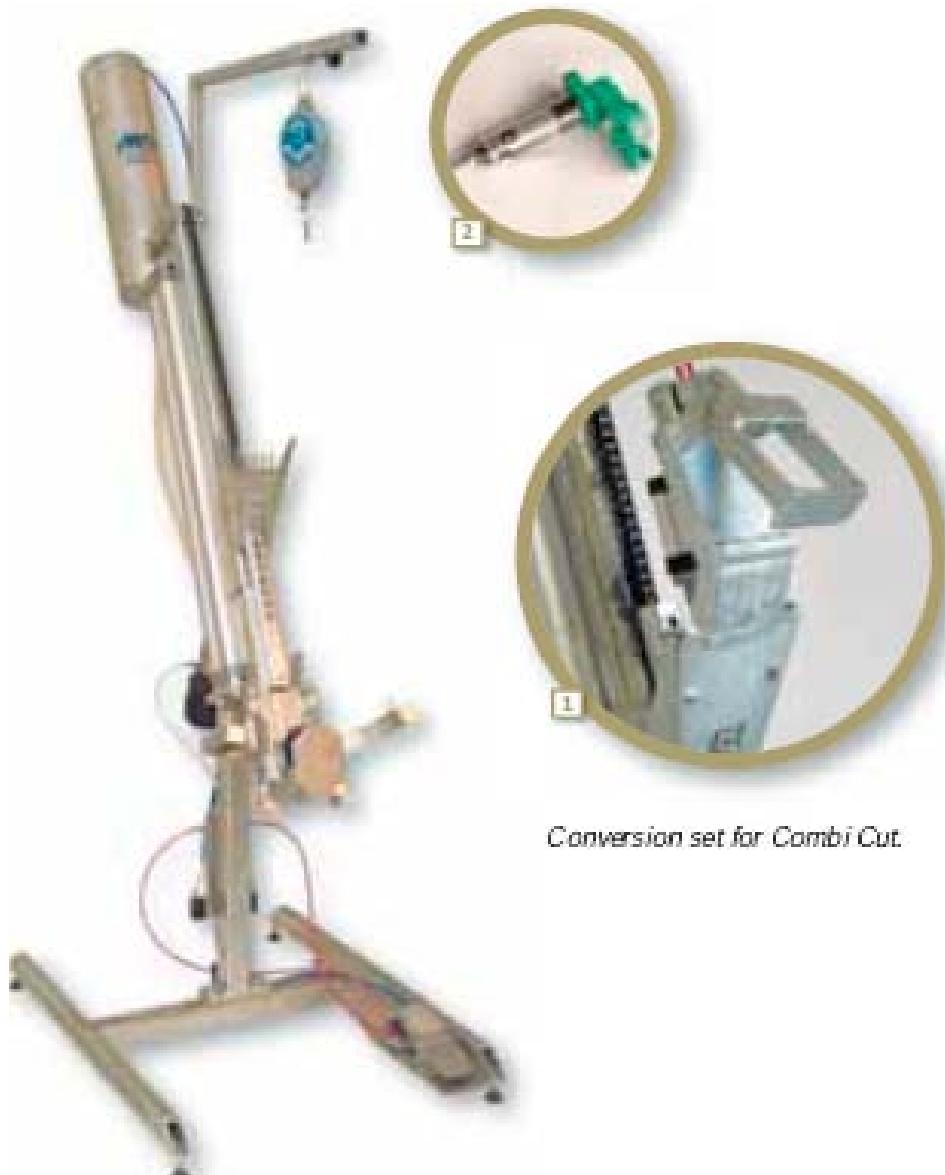


Fig 6

- **Fleshing Machines:** Once the pelt is separated from the body, the flesh and fat remaining on the pelt has to be scraped off using a fleshing machine. See Figure 7.

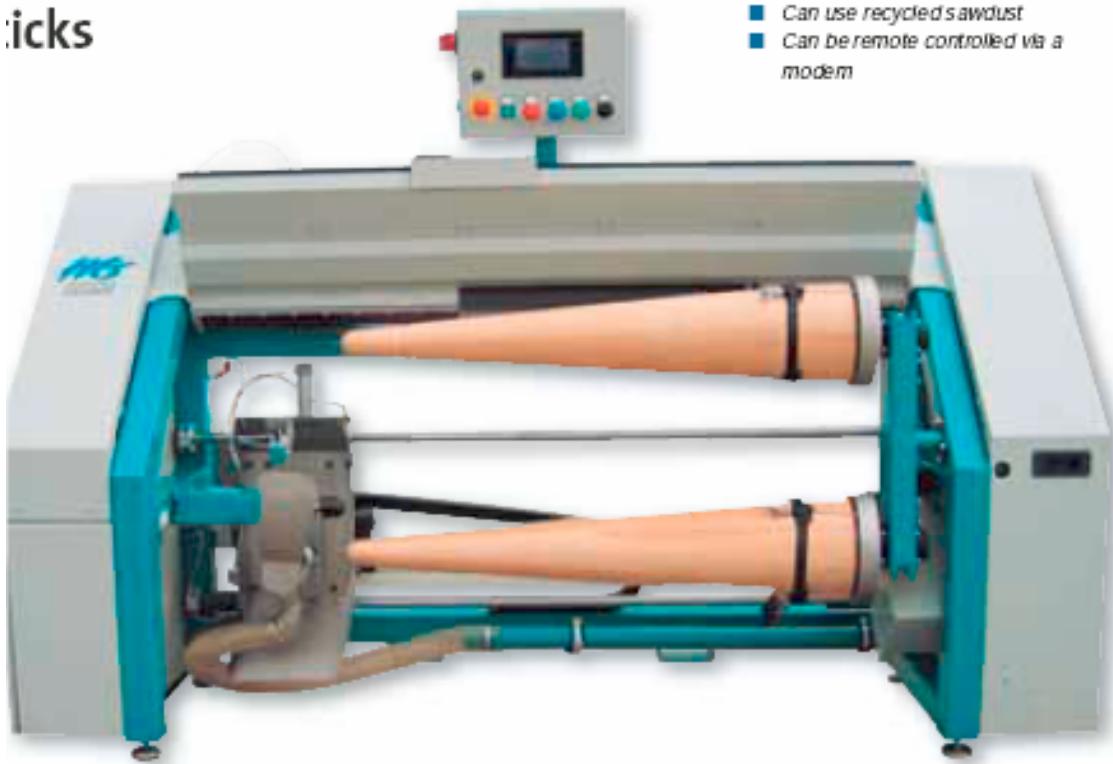


Fig 7

- **Drums:** After fleshing, the pelts need to be placed in drums containing sawdust to remove any remaining grease. See Figure 8

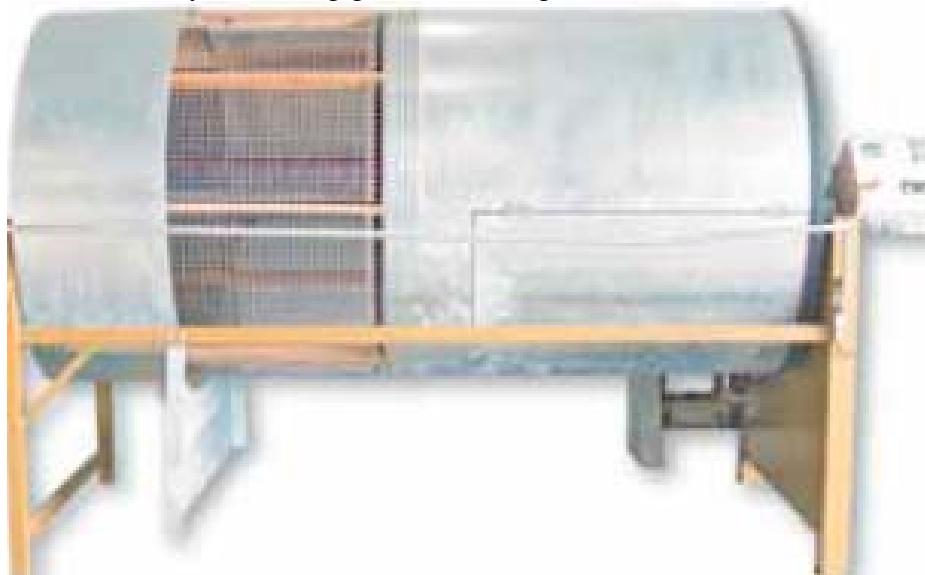
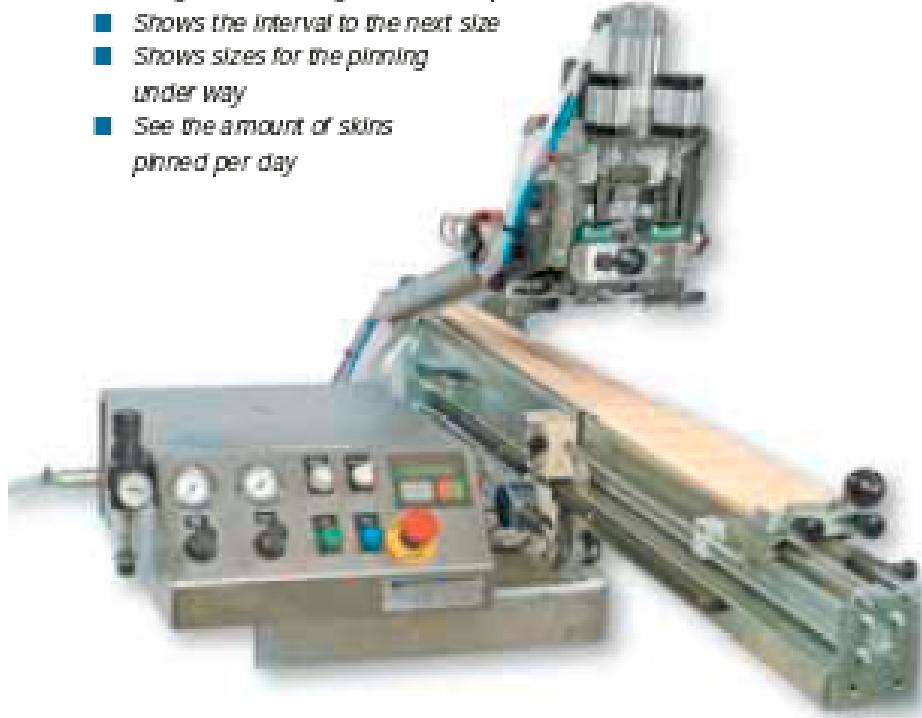


Fig 8

- **Boards and Pinning Machines:** After final drumming the pelts are stretched onto Pin Boards in preparation for the drying process. A Pinning Machine is used to help stretch the pelt and staple it to the Board. See Figure 9 & 10.



- **Drying System:** After placing the pelts onto Boards, they are brought to the drying room. The temperature and humidity in the room will be controlled. The Boards are hung from Drying Boxes, which contain a series of tubes through which air is blown. Over a three to four day period this system will properly dry the skins. See Figure 11.



Fig 11

- **Staple and Board Removers:** Once the pelts are properly dried they must be removed from the Boards and then sent to the stock room for storage prior to shipment. See Figure 12.



Fig 12

- **Storage Room – Qstock, Racks, and Hangers:** The dried, completed pelts have to be properly stored until packaged for shipment to the auction house. A stock room will be established where the pelts will be properly hung on hangers and racks. The temperature and humidity of the room will be controlled.
- **Miscellaneous Equipment – Compressor, Vacuum Pump, Fat Barrels, Transport Wagons:** In addition to the major equipment outlined above, the pelting plant will also require the following equipment;
 - A Compressor to operate the air operated machinery;
 - A Vacuum Pump for the collection of fat/grease;
 - Fat Barrels, where the fat/grease will be collected and stored; and
 - Transport Wagons for the movements of pelts within the building.

