Agricultural Products

FLAX *Linum usitatissimum* from which comes our words "linen", "linseed oil", "linoleum".

Flax seed is sewn as early in the springtime as the ground will permit; as soon as the frost leaves it, in other words. The seed was distributed rather densely so that the plants would be forced to grow straight upward to get enough sunlight, rather than to put out branches, which was not desirable. When ready for harvesting, the plants would be about two feet high.

When the mature plants were ready for harvesting along about mid-summer, they were pulled up out of the ground rather than cut, and allowed to dry on the surface for a day or two. Cutting caused the plant's sap to flow out, and this would stain the fibers, after which no amount of bleaching would produce white cloth.

After drying, the flax was pulled through a ripple comb made with coarse wooden or heavy wire teeth. This broke off the pods and the seeds, which were saved for next year's planting, or for barter or cash sale.

The stalks were then tied by the top end in bundles called "beats", or "bates" (depending on what part of the country you came from) and the base of the stalks were spread out to form a tent-shaped stack called a "stook" for drying.

Next came soaking in water for fermentation, the length of time depending on the temperature and whether the water was moving. One method was to put the stalks in a stream. This was a smelly and slow process. Another way was to dig a pit and fill it with water. This was a faster process, taking four or five days, but the smelliest method of all. A third method, very common around here, was to just spread the flax over the ground and let it absorb moisture that way.

Flax fibers lie between the woody core on the inside and the woody outside skin. It took considerable knowledge to know when to remove the flax from the water, or when it had absorbed just the right amount of moisture for a long enough period to rot away all but the fibers. The rotted leaves were removed and the flax again was tied in bundles and dried.

To clean and soften the flax fibers for spinning involved several operations, some requiring considerable strength. The first was called the <u>breaking process</u>, which involved the use of a device having five wooden boards about two and a half feet long by one half or three quarters of an inch wide. This was arranged with three on one side and two on the other so that when the flax is laid on the surface containing the three and the opposite side with two is forced together, the woody material is broken, thus separating it from the usable fibers.

Next came the <u>swingling</u> board or block. The flax was laid over the top of a board and another board, called a swingle, which is shaped like a knife, is used to stroke the flax against the block to scrape out seeds and further break down the fibers. A quote from the old days was, "A man could swingle 40 pounds of flax a day, but it was hard work" The clean fibers were then made into bundles called "strikes" and swingled again and from the refuse, called "swingle-tree hurds", coarse bagging could be spun and woven.

The final operation before spinning (the last of 20 manipulations since harvesting the flax) was hacking or hetching, first on a coarse-toothed hackle and then on a fine-toothed one. (There are examples of the tools being described here in the Colebrook Historical Society.) After being slightly wetted, the flax was drawn through the teeth of the hackle to pull and lay the fibers straight. Flax fibers are from 8" to 24" in length. The short and broken coarse fibers, called "tow", were separated from the longer, finer fibers. The tow was not discarded, but was spun on a tow spinning wheel to make threads for burlap, rope and farm upholstery fabrics. After much hackling, there was little good fiber left for finer materials; however, it was surprising how much linen thread could be made from this remaining flax. A good operator would wind up with very little tow and mostly "line" flax, and a poor hackler would convert good flax into less valuable tow.

After these 20 operations and about a year after the flax was planted, approximately 20% of the harvest yielded fibers for spinning – the rest was chaff, and even that was put to work. The seeds were saved for planting or barter or sale or for medicinal purposes such as flax poultices. Another reputed use for flax seed was to crush it and place under the eyelid where the oil from the seed lubricated and aided in removing a foreign object.

After the flax had been hackled, it was braided together and hung from beams where it would last forever unless it got wet. These braids were known as "pigs tails".

When it came time for the housewife to spin it, the flax was wound around and tied on the distaff of the spinning wheel. This is the source of our phrase "the distaff side", meaning the female side.

A flax wheel is considerably smaller than the "great wheel" used in spinning wool. It is driven by a treadle instead of the right hand. Another difference between spinning wool and flax is that the flax spinner must moisten her fingers as she works to make the fibers cling together.

A tow wheel differs from the flax wheel in that it is of a heavier construction, with a heavy treadle which supplies more centrifugal force needed for the coarse material. Boys were often employed to operate tow wheels, as it took greater foot power to drive the treadle.

Rope was always made of multiples of three pieces of spun tow. It was spun with alternating right hand turns and left hand turns. Three right hand twists would be twisted alternately with three left hand twists. This alternation is what kept the rope from unwinding and becoming a loose mass of strands. The more twists are added, the heavier the rope..

The North family, builders of and for many years the operators of the Red Barn (Hale Barn) at the foot of Stillman Hill, made rope at the beginning of the nineteenth century, as it shows up in their journals, now at the Colebrook Historical Society. Also, in the Ledger of the Salisbury Store (1779-1783), owned by Richard Smith, and now at the society, there are two items referring to tow cloth sold in 1779. One was for 53 yards of tow cloth @ 4 shillings per yard (10 pounds, 12 shillings), and tow cloth for waist bands, 5 yards for 1 pound.

Historic Bytes
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