

HEMP FOR VICTORY

By the US Department of Agriculture

-- 1942 --

Long ago when these ancient Grecian temples were new, hemp was already old in the service of mankind. For thousands of years, even then, this plant had been grown for cordage and cloth in China and elsewhere in the East. For centuries prior to about 1850 all the ships that sailed the western seas were rigged with hempen rope and sails.

For the sailor, no less than the hangman, hemp was indispensable. A 44-gun frigate like our cherished Old Ironsides took over 60 tons of hemp for rigging, including an anchor cable 25 inches in circumference. The Conestoga wagons and prairie schooners of pioneer days were covered with hemp canvas. Indeed the very word canvas comes from the Arabic word for hemp. In those days hemp was an important crop in Kentucky and Missouri. Then came cheaper imported fibers for cordage, like jute, sisal and Manila hemp, and the culture of hemp in America declined.

But now with Philippine and East Indian sources of hemp in the hands of the Japanese, and shipment of jute from India curtailed, American hemp must meet the needs of our Army and Navy as well as of our Industry. In 1942, patriotic farmers at the government's request planted 36,000 acres of seed hemp, an increase of several thousand percent. The goal for 1943 is 50,000 acres of seed hemp.

In Kentucky much of the seed hemp acreage is on river bottom land such as this. Some of these fields are inaccessible except by boat. Thus plans are afoot for a great expansion of a hemp industry as a part of the war program. This film is designed to tell farmers how to handle this ancient crop now little known outside Kentucky and Wisconsin.

This is hemp seed. Be careful how you use it. For to grow hemp legally you must have a federal registration and tax stamp. This is provided for in your contract. Ask your county agent about it. Don't forget.

Hemp demands a rich, well-drained soil such as is found here in the Blue Grass region of Kentucky or in central Wisconsin. It must be loose and rich in organic matter. Poor soils won't do. Soil that will grow good corn will usually grow hemp.

Hemp is not hard on the soil. In Kentucky it has been grown for several years on the same ground, though this practice is not recommended. A dense and shady crop, hemp tends to choke out weeds. Here's a Canada thistle that couldn't stand the competition, dead as a dodo. Thus hemp leaves the ground in good condition for the following crop.

For fiber, hemp should be sown closely, the closer the rows, the better. These rows are spaced about four inches. This hemp has been broadcast. Either way it should be sown thick enough to grow a slender stalk. Here's an ideal stand: the right height to be harvested easily, thick enough to grow slender stalks that are easy to cut and process.

Stalks like these here on the left wield the most fiber and the best. Those on the right are too coarse and woody. For seed, hemp is planted in hills like corn. Sometimes by hand. Hemp is a dioecious plant.

The female flower is inconspicuous. But the male flower is easily spotted. In seed production after the pollen has been shed, these male plants are cut out. These are the seeds on a female plant. Hemp for fiber is ready to harvest when the pollen is shedding and the leaves are falling.

In Kentucky, hemp harvest comes in August. Here the old standby has been the self-rake reaper, which has been used for a generation or more. Hemp grows so luxuriantly in Kentucky that harvesting is sometimes difficult, which may account for the popularity of the self-rake with its lateral stroke. A modified rice binder has been used to some extent. This machine works well on average hemp. Recently, the improved hemp harvester, used for many years in Wisconsin, has been introduced in Kentucky. This machine spreads the hemp in a continuous swath. It is a far cry from this fast and efficient modern harvester, that doesn't stall in the heaviest hemp.

In Kentucky, hand cutting is practicing in opening fields for the machine. In Kentucky, hemp is shucked as soon as safe, after cutting, to be spread out for retting later in the fall.

In Wisconsin, hemp is harvested in September. Here the hemp harvester with automatic spreader is standard equipment. Note how smoothly the rotating apron lays the swaths preparatory to retting.

Here it is a common and essential practice to leave headlands around hemp fields. These strips may be planted with other crops, preferably small grain. Thus the harvester has room to make its first round without preparatory hand cutting. The other machine is running over corn stubble. When the cutter bar is much shorter than the hemp is tall, overlapping occurs. Not so good for retting. The standard cut is eight to nine feet.

The length of time hemp is left on the ground to ret depends on the weather. The swaths must be turned to get a uniform ret. When the woody core breaks away readily like this, the hemp is about ready to pick up and bind into bundles. Well-retted hemp is light to dark grey.

The fiber tends to pull away from the stalks. The presence of stalks in the bough-string stage indicates that retting is well underway. When hemp is short or tangled or when the ground is too wet for machines, it's bound by hand. A wooden bucket is used. Twine will do for tying, but the hemp itself makes a good band. When conditions are favorable, the pickup binder is commonly used. The swaths should lie smooth and even with the stalks parallel. The picker won't work well in tangled hemp. After binding, hemp is shucked as soon as possible to stop further retting.

In 1942, 14,000 acres of fiber hemp were harvested in the United States. The goal for the old standby cordage fiber, is staging a strong comeback. This is Kentucky hemp going into the dryer over mill at Versailles.

In the old days braking was done by hand. One of the hardest jobs known to man. Now the power braker makes quick work of it. Spinning American hemp into rope yarn or twine in the old Kentucky river mill at Frankfort, Kentucky. Another pioneer plant that has been making cordage for more than a century. All such plants will presently be turning out products spun from American-grown hemp: twine of various kinds for tying and upholsters work; rope for marine rigging and towing; for hay forks, derricks, and heavy duty tackle; light duty fire hose; thread for shoes for millions of American soldiers; and parachute webbing for our paratroopers.

As for the United States Navy, every battleship requires 34,000 feet of rope. Here in the Boston Navy Yard, where cables for frigates were made long ago, crews are now working night and day making cordage for the fleet. In the old days rope yarn was spun by hand. The rope yarn feeds through holes in an iron plate. This is Manila hemp from the Navy's rapidly dwindling reserves. When it is gone, American hemp will go on duty again: hemp for mooring ships; hemp for tow lines; hemp for tackle and gear; hemp for countless naval uses both on ship and shore. Just as in the days when Old Ironsides sailed the seas victorious with her hempen shrouds and hempen sails. **Hemp for victory.**