GROWING SILKWORMS, *BOMBYX MORI*, FOR VICTORY AND PEACE

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In this study an attempt is made to give information regarding the commercial possibilities of raising silkworms. *Bombyx mori* L. is selected for study. This insect has a complete life history. It belongs to the order Lepidoptera, and family Bombycidae. Its origin was in Asia, most likely in China. Other countries have taken up the silkworm culture, the most important ones being Japan, India, Persia, Italy, Turkey, Africa, Spain, Sicily, France, Germany, England, and America.

Prior to her attack on Pearl Harbor Japan produced 700,000,000 to 900,000,000 pounds of silkworm cocoons annually. Most of this silk was purchased by the United States. In 1937-38 Americans spent $1,400,000,000 for silk stockings alone. Now this supply has been cut off. The writer is convinced that sericulture or the raising of silkworms can be commercially profitable in the United States, for this country has more than an adequate supply of white-mulberry trees which are the only necessary food requirement in the raising of silkworms. Incubators can be used to maintain the proper temperature for the hatching of eggs. Today there is an unusually great demand for silk in the manufacture of balloons, dirigibles, parachutes, cartridge-box cloth, powder bags for large calibre guns, etc.

In June 1944 the writer obtained a small quantity of silkworm eggs. After placing the eggs (which are about the size of poppy seeds) in cardboard containers, the temperature was gradually raised from 50°F on the first day to 77°F on the sixteenth day and this high temperature was maintained until all viable eggs had hatched. At first the larva is about one-eighth inch in length; just before the cocoon stage it measures about 3.5 inches. In about thirty days the first cocoons were formed and were attached to excelsior in which the larvae had been placed. The moths began to emerge from the cocoons on the twelfth day. When ready to come out the moth moistens one end of the cocoon with liquid from its mouth and then pulls the thread apart with its feet, thus making a hole large enough for its body to pass through. The female moth can be distinguished from the male by its larger size and passive attitude. The male is extremely restless and flutters its wings almost constantly. The pairs mate almost immediately after they leave the cocoons. The ten females from this group of 36 cocoons laid about 1500 eggs.

There are plenty of white-mulberry trees around Enid, Oklahoma, where this experiment is being carried out and in 1945 the writer intends to begin work with from 50,000 to 100,000 silkworm eggs. Plans are being made for the gradual planting of several acres of ground in white-mulberry trees for the feeding of silkworms.