

## A Valuable Weed

**M**ILKWEED, once considered as a possible source of rubber but long since dismissed, may yet become a useful crop plant, in the opinion of Dr. Fisk Gerhardt of the Iowa Agricultural Experiment Station.

In a report to *Industrial and Engineering Chemistry*, Dr. Gerhardt shows that milkweed compares favorably with other plants of commercial value, such as flax and kapok. He reports a yield of 30 bushels of seed, 280 pounds of floss, and one ton of airy stems per acre. He finds that its seeds are rich in oil, that its seed fibers are buoyant and do not absorb water readily, and that its stem fibers compare favorably with hemp and flax.

Analysis shows that the dark brown seed of the milkweed is similar in composition to that of several of our crop plants. It contains 21.2 per cent. of oil, as compared with 19 per cent. in cotton seed, and 33 per cent. in flax seed. It is classified as a semi-drying oil. By bleaching it is possible to make it a clear, colorless product similar to various plant oils now in use as food.

The fibers just beneath the bark and along the outer surface of the woody stem are soft, pliable, almost white, and resemble flax very closely.

The silvery white seed fibers of the milkweed plant have been called "the cotton of the north." All attempts to use them in the textile industry, however, have so far failed, as the fibers are rather brittle. Nevertheless they do have a low moisture absorption and a high degree of buoyancy. These specific qualities make them especially fitted for use in playground equipment, life savers, and insulating materials. They resemble kapok in these respects.

"With the pronounced increase in our consumption of cellulose," Dr. Gerhardt says, "it becomes obvious that our future supply will of necessity originate in annual plants rather than in those plants requiring years to attain sufficient maturity, such as trees. In the development of future sources, the by-product return in the form of oils, gums, resins and protein concentrates will continue to be a factor of prime importance. The commercial demand for these latter commodities is gradually approaching in magnitude that of our cellulose industries. Among the primary problems, then, now confronting the chemist and plant breeder are those concerned with further exploitation of our present cellulose wastes and the development of our most promising sources of fibrous materials."

*Science News-Letter, March 22, 1930*

## Traces of Sloth, Man Found Together

*Paleontology*

**F**URTHER evidence of the possible contemporaneous existence of man and ground sloths, extinct camels and other ancient animals has been found in Gypsum Cave near Las Vegas, Ariz., by the joint expedition of Southwest Museum and the California Institute of Technology. Eleven feet deeper than the sloth bones previously reported as associated with human remains in the same cave, the party has discovered camel bones and the bones of the native American horse, which had been extinct for many centuries before the coming of the white man. Two hoofs, with the original horny covering still in place, were a part of the latter find.

The cave has also yielded deeply buried archaeological remains, including articles of human manufacture and charcoal, associated with sloth guano. This suggests, though it does not definitely prove, association between human beings and living ground sloths.

This new discovery puts forward once more the question that has been raised repeatedly in the Southwest during recent years, of the possible great antiquity of man on this conti-

nent. It has been taken for granted that ground sloths, native horses, and American camels were extinct for many thousands of years before the coming of man to America. Some estimates put the gap as wide as 100,000 years.

However, if the researches now in progress here and elsewhere do finally demonstrate that human beings and these animals lived side by side, it will still not prove that man was here 100,000 years ago. It may be that the animals survived their officially announced date of demise, and lingered on until eight or ten thousand years ago, when even conservative estimates of the antiquity of man will admit human immigration into the western world.

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An observer who rises 10,000 feet can see 50,000 square miles of the earth.

Among the industrial enterprises of ancient Phoenicia was the working of lead mines in Spain from which place they distributed the metal.

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