THE DISSEMINATION OF PRICKLY PEAR
SEED BY JACK RABBITS

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RECENT experiments at the Fort Hays Branch of the Kansas Agricultural Experiment Station indicate that jack rabbits are important agents in disseminating the seed of prickly pear cactus. It may be responsible for much of the rapid spread of this weedy plant over the range lands in western Kansas and possibly in other sections of the Great Plains and Southwest in recent years. The increased attention now being given to the control of prickly pear encourages consideration of this method of spreading the seed.

Dameron and Smith (1) estimated that the area in Texas infested with prickly pear (Opuntia spp.) comprises at least 60 million acres but stated that it is only during recent years that the plant has become sufficiently abundant to give concern to livestock men. Nearly 4 million acres of pasture land in Kansas are infested with prickly pear according to a survey made by Yost (8) in 1939.

The importance of rabbits and other animals as agencies in the spread of prickly pear (Opuntia spp.) was recognized in Australia (2) in 1919. Most of the seeds found in rabbit droppings were chewed into small bits but occasionally whole seeds were observed. The emu and the black magpie were considered of much more importance in the spread of prickly pear since they ate large quantities of the ripened fruit and the seed passed uninjured through their digestive tracts and was scattered by them over wide areas. Large quantities of seed were also found in the droppings of cattle.

Toit (3) and Phillips (4) reported that in South Africa the fruit of prickly pear (Opuntia spp.) furnishes an important item in the diet of native tribesmen and that seed of increased viability is thus disseminated over wide areas. Monkeys, baboons, goats, and various kinds of birds were also reported to play important roles in disseminating the seed. Cattle were observed to eat ripened prickly pear fruits avidly, often acquiring such a craving for them that they would eat practically nothing else during the fruiting season.

At Hays, Kans., the activities of jack rabbits in feeding upon ripened fruit and in disseminating seed of prickly pear were observed (7) by chance in August 1939 during the course of some cactus eradication experiments. Following this observation, rather careful studies were made to determine the nature and extent of the seed dissemination. Germination tests of seed recovered from rabbit droppings and from the dried fruits were made to determine the effect upon viability of passage through the digestive tract of the jack rabbit.

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3Figures in parenthesis refer to “Literature Cited”, p. 520.