SOME CAUSES OF THE INJURIOUS AFTER-EFFECTS
OF SORGHUMS AND SUGGESTED REMEDIES

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INTRODUCTION

The sorghums are a class of crops which, so far as their production
is concerned, fit admirably into the agriculture of many sections of
the United States. The advantages of high yields, drought resistance,
vitality, and profitableness have recommended them to the farmer’s
consideration. Under many conditions, however, their culture has
proved injurious to certain crops following and especially to the
small grains. This injury has been so great under certain conditions
as to overbalance in the minds of the farmers the many advantages
of these crops. Though the yields of the sorghum crop itself may be
high, the crop sequence of sorghum followed by a small grain may
be much less profitable than an entirely different crop sequence which
would not include any of the sorghums. Field tests have been
reported from time to time showing the extent of injury to crops
following sorghums. Comparisons have been made in most cases
between yields of small grains following sorghums and yields of those
crops following corn, though other crops have been used as test and
comparison crops.

INJURY OF SORGHUMS TO SUCCEEDING CROPS

Ten Eyck and Shoesmith (20) conducted crop sequence studies
with corn and various other crops in Kansas from 1904 to 1906. They
secured the lowest yields of corn where this crop followed kafr and
sorghum.

Towle (21) at Sheridan, Wyoming, secured a slight depression in
the yield of wheat following sorgo but apparently no depression in
oats.

From 1909 to 1923 Brandon (1) at Akron, Colorado, secured smaller
yields of oats following sorgo, milo, and kafr than from oats following
corn. The average yields were, respectively, 7.8 bushels, 3.5 bushels,
and 3.2 bushels less than the yield of oats following corn.

From 1916 to 1920 at Port Hayes, Kansas, Cole and Hallsted (4)
carried on two-year rotations in which corn and kafr were alternated
with winter wheat. In one of the corn rotations the corn was spaced
normally, while in the other the rows were spaced twice as far apart.