

LIVING ON THE PRAIRIE

The tallgrass prairie has covered the Flint Hills for about 10,000 years, as far as we know. Earliest descriptions of this area by Europeans vary from verdant meadow, to sea of grass to desert wasteland. The settlers at first just wanted to get across on their journeys to California or Oregon. Later settlers endured the summer droughts and storms on their prairie farms with what we now consider incredible fortitude. Living on the prairie in winter was costly in livestock, and in lives. Children could be lost in a blizzard on their walk home from school, cattle froze in the pastures and game populations were decimated. Mittens and warm socks were a luxury, as were waterproof boots. Pneumonia was a common cause of death.

The summer droughts were equally serious. Crops withered in the fields, pastures had nothing to offer starving livestock and wells dried up. These were the years of great grasshopper plagues. They came by the billions, ate literally everything and left on the next favorable wind. Gardens and field crops were completely lost, everything green eaten. Prairie fires destroyed homes and livestock, burning for miles with no way to stop them.

The prairie climatic conditions persist today but their effects go largely unnoticed by families in weatherproof houses, with good transportation,

clothing designed against the elements and public services to safeguard us against the dangers of severe weather. Farmers and ranchers are still close enough to the land to realize the consequences of regional weather. Others who work on the land see these effects as well. On Konza researchers study the effects of climate on the prairie and compile data on annual and long-term changes to vegetation, soils and animal populations.



**A LIGHTENING FIRE IN AUGUST 2002,
CONTAINED BY KONZA FIRE CREW.**

Stony hilltops and rocky outcrops on the prairie are veritable deserts in any dry year. In drought years, vegetation everywhere turns brown. Leaves curl and wilt as plants try to cope. The summer of 2002, the driest in 113 years for this area, had no significant precipitation for 61 days from the end of May to the end of July. Plant growth had stopped by July 20 due to lack of soil moisture. Summer field crops were mostly lost. Researchers studying long-term irrigation plots on Konza found that plant productivity increased by 80 per cent over plots with no additional water. Yet five inches of rain at the end of July and 3.5 inches in August turned crispy fields of grass into green growth in less than 2 weeks. Butterflies appeared out of nowhere. Fall blooming flowers did just fine. Biomass production was, of course, lower than an “average” year, but the adaptation of plant and animal life to prairie extremes was truly phenomenal with green vistas well into October.