



THE
LAND

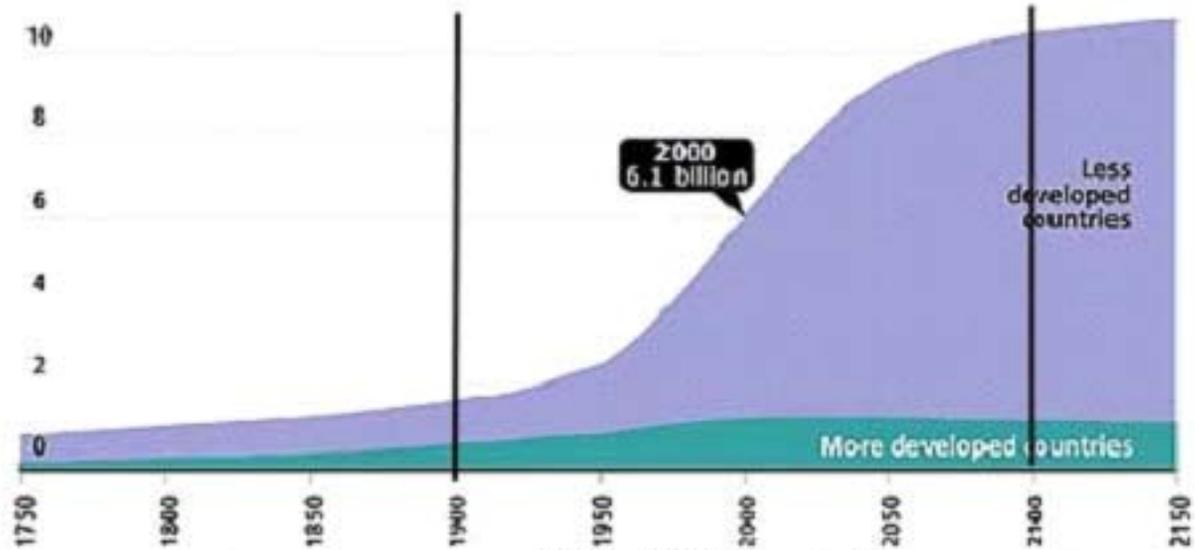
INSTITUTE



www.landinstitute.org

World Population Growth, 1750-2150

Population (in billions)



Global Oil Production

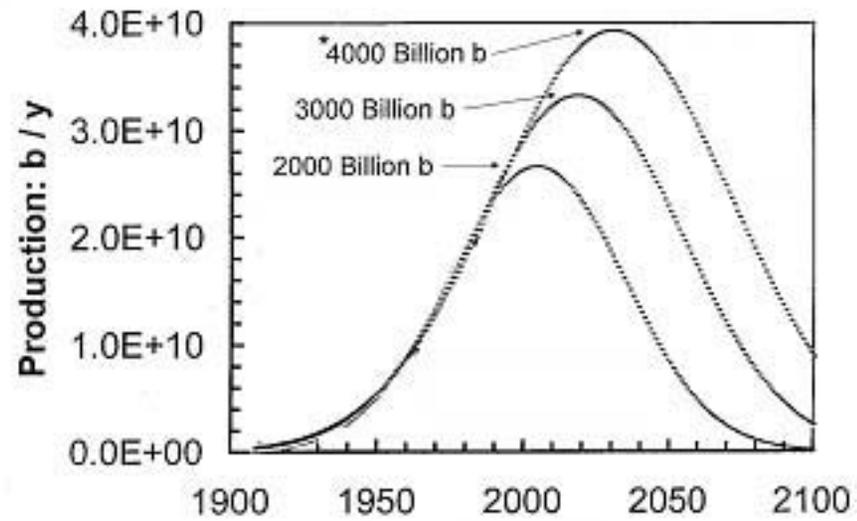
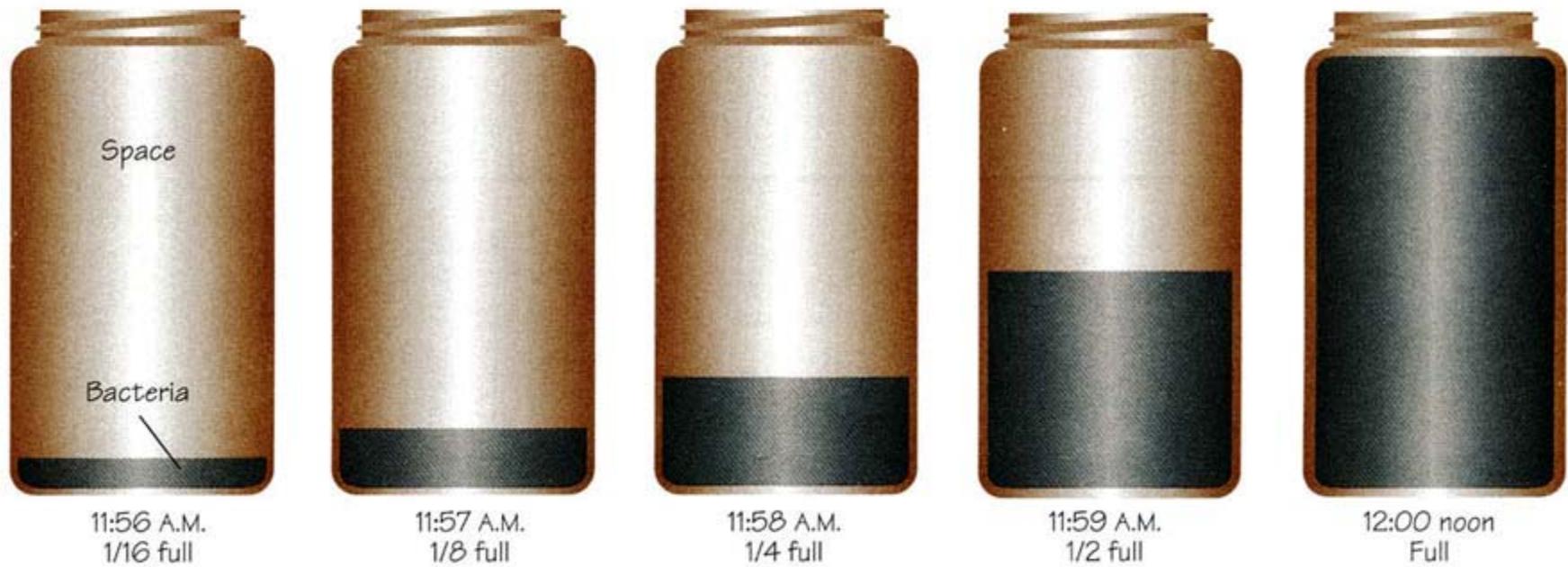
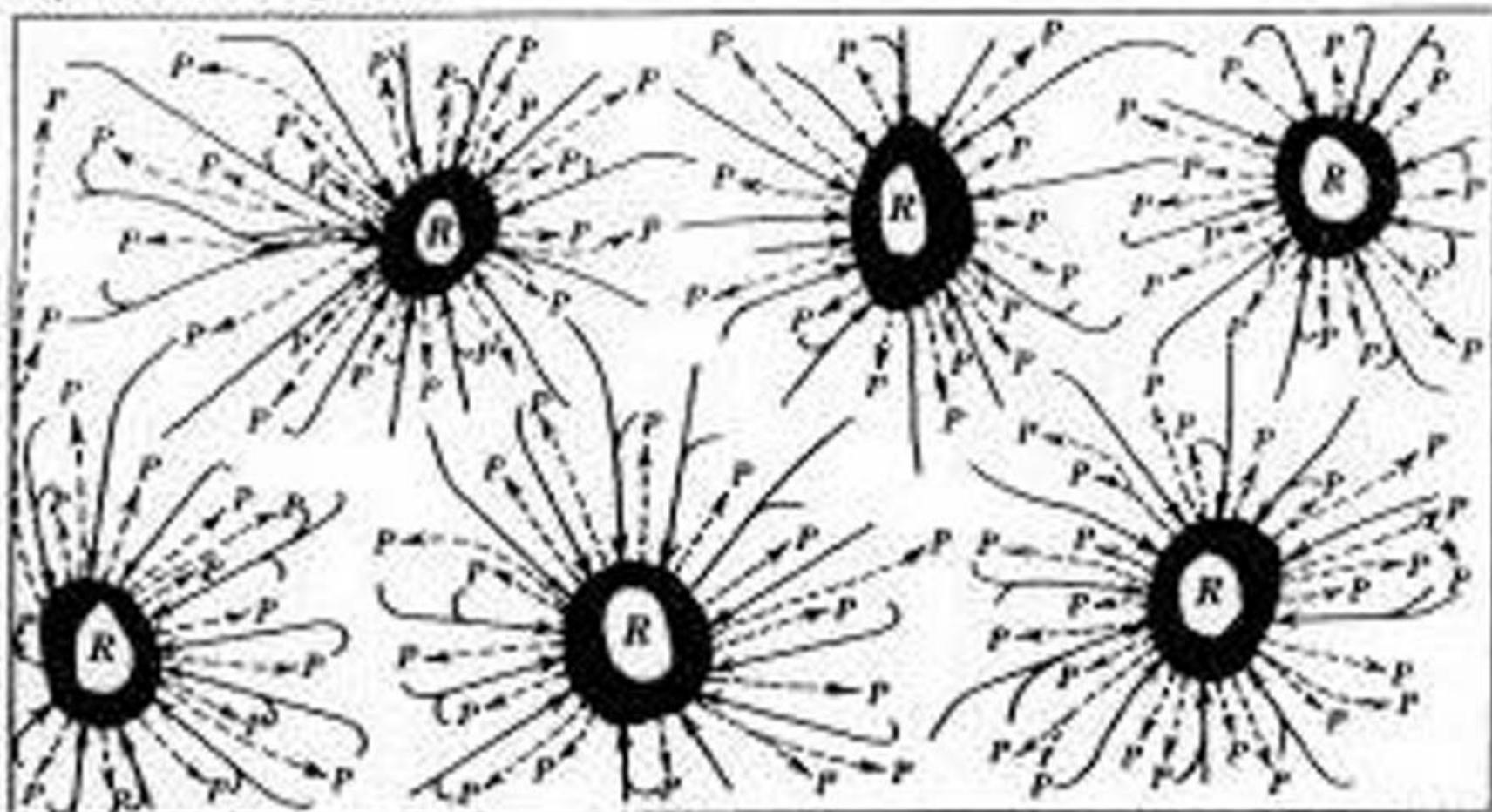


Figure 18-7. Bacteria (reproducing via fission) with a doubling time of one minute would fill a bottle as illustrated below.

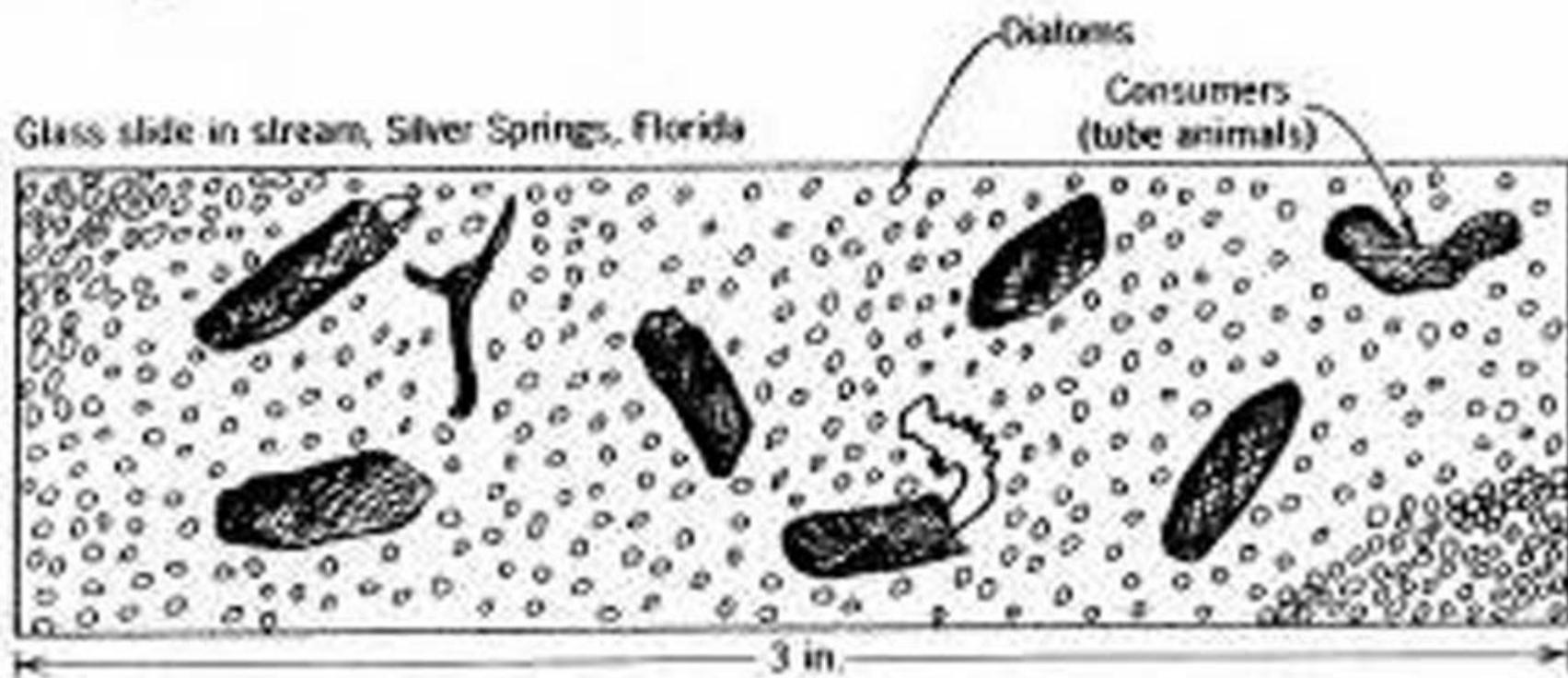


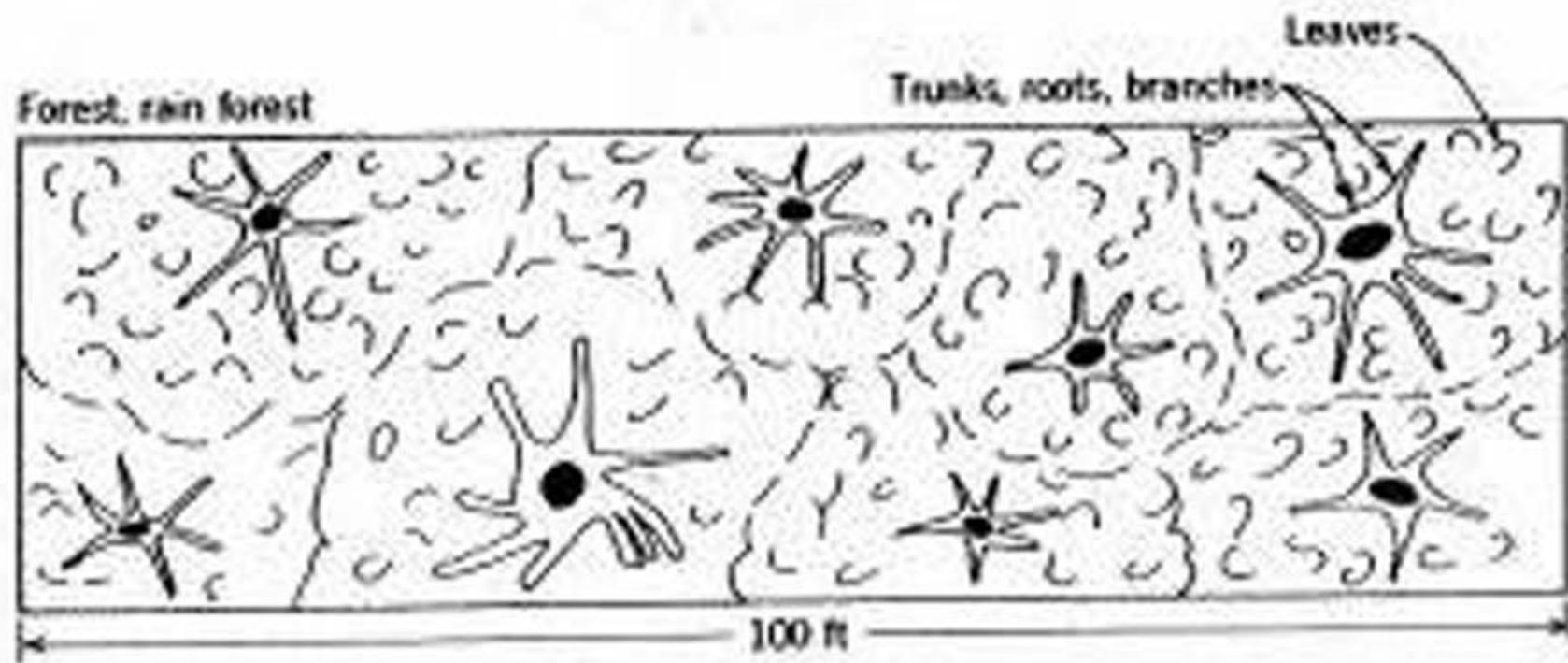
Top view of P-R systems



---> $\text{CO}_2 + \text{H}_2\text{O} + \text{minerals (waste, fertilizer)}$
—> $\text{O}_2 + \text{fuel}$

P is photosynthesis
R is respiration

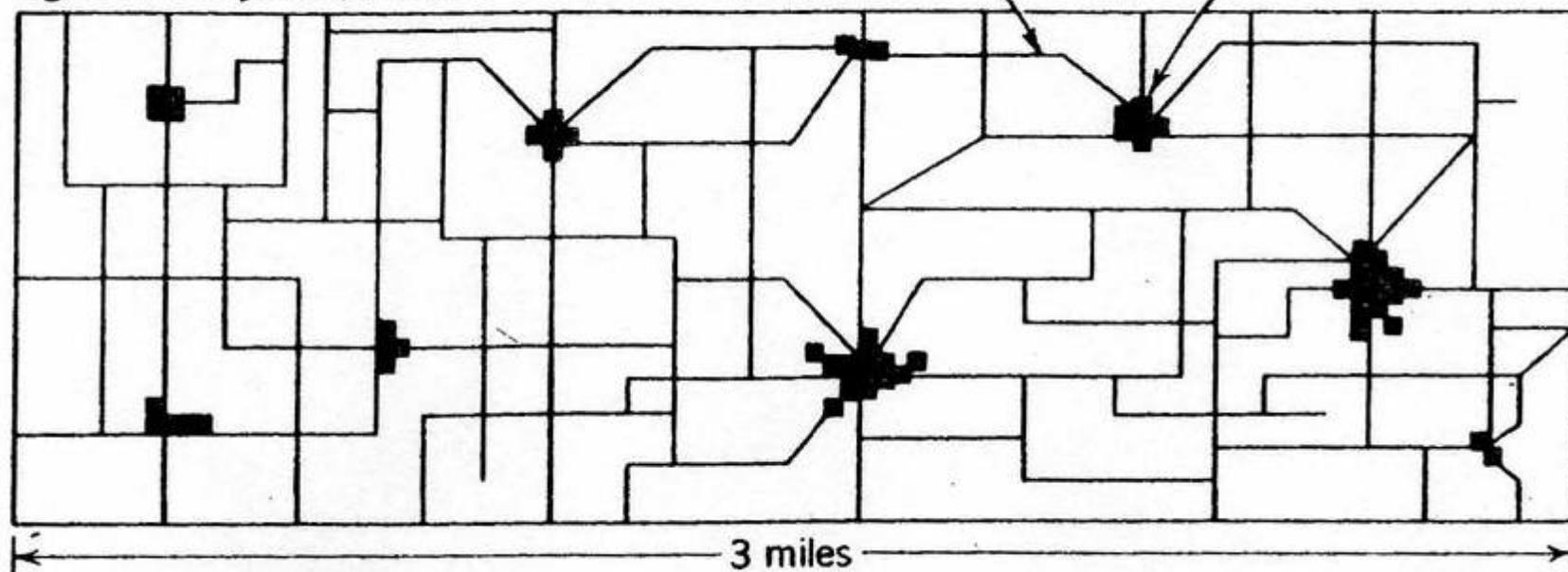




Agricultural system, Kansas

Country roads

Houses



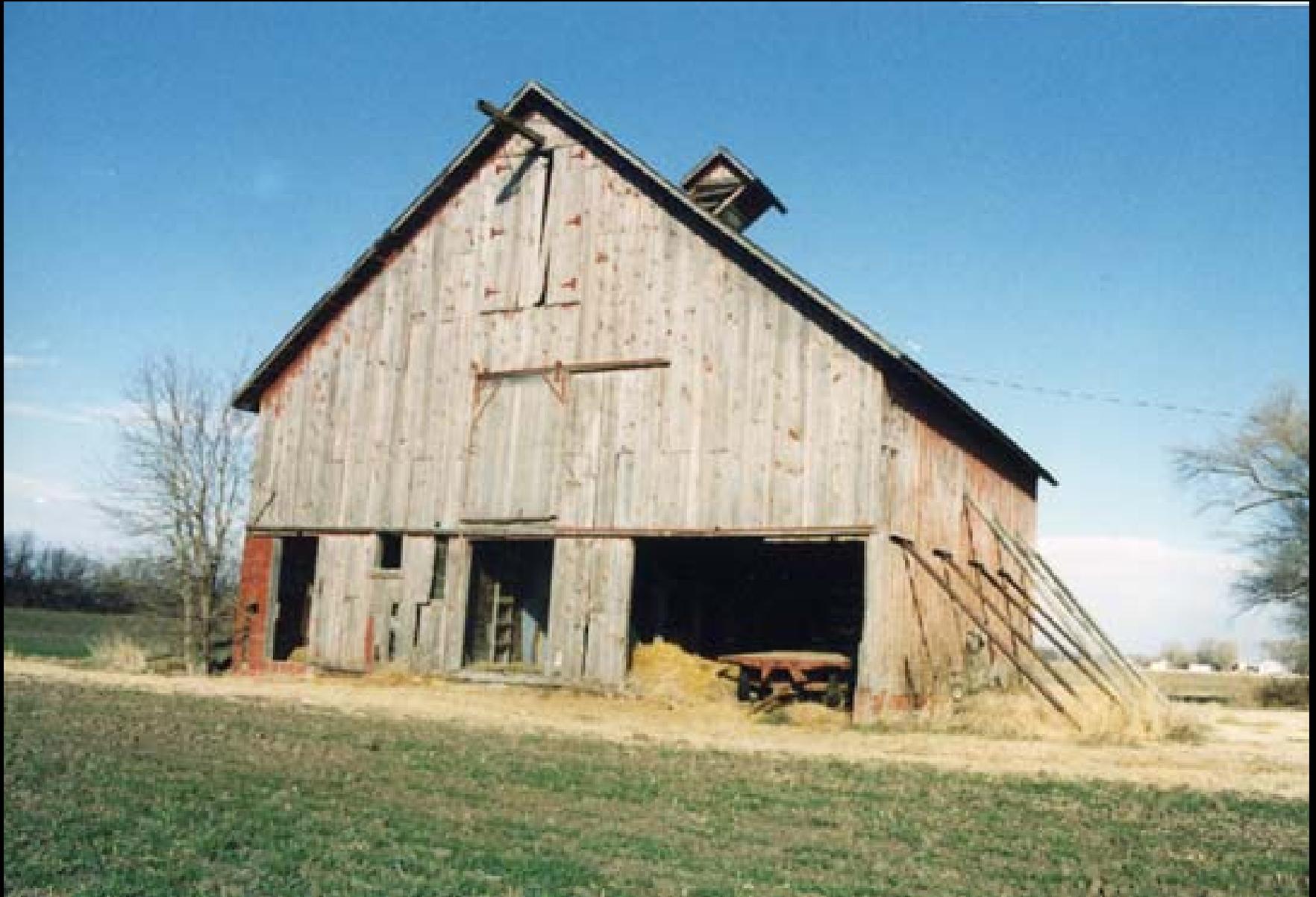












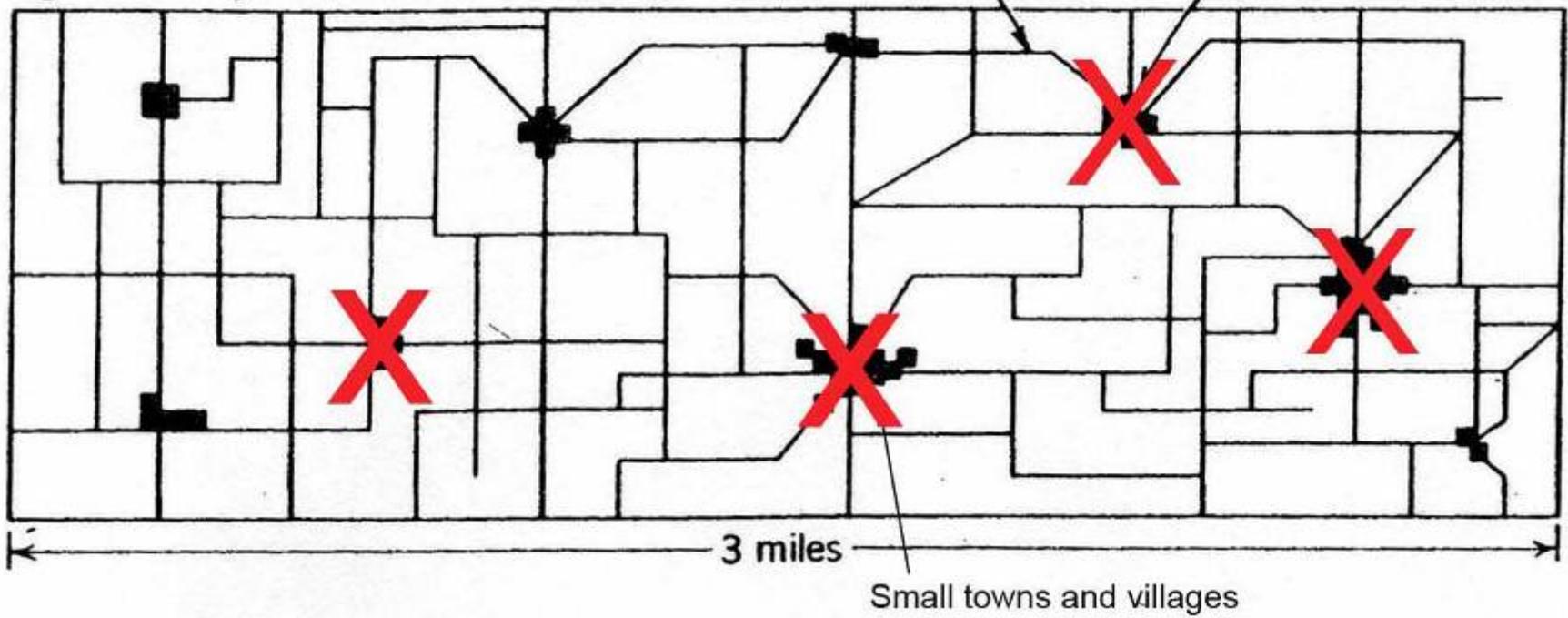




Agricultural system, Kansas

Country roads

Houses



3 miles

Small towns and villages

WHEAT REGION SHIFTS NORTH

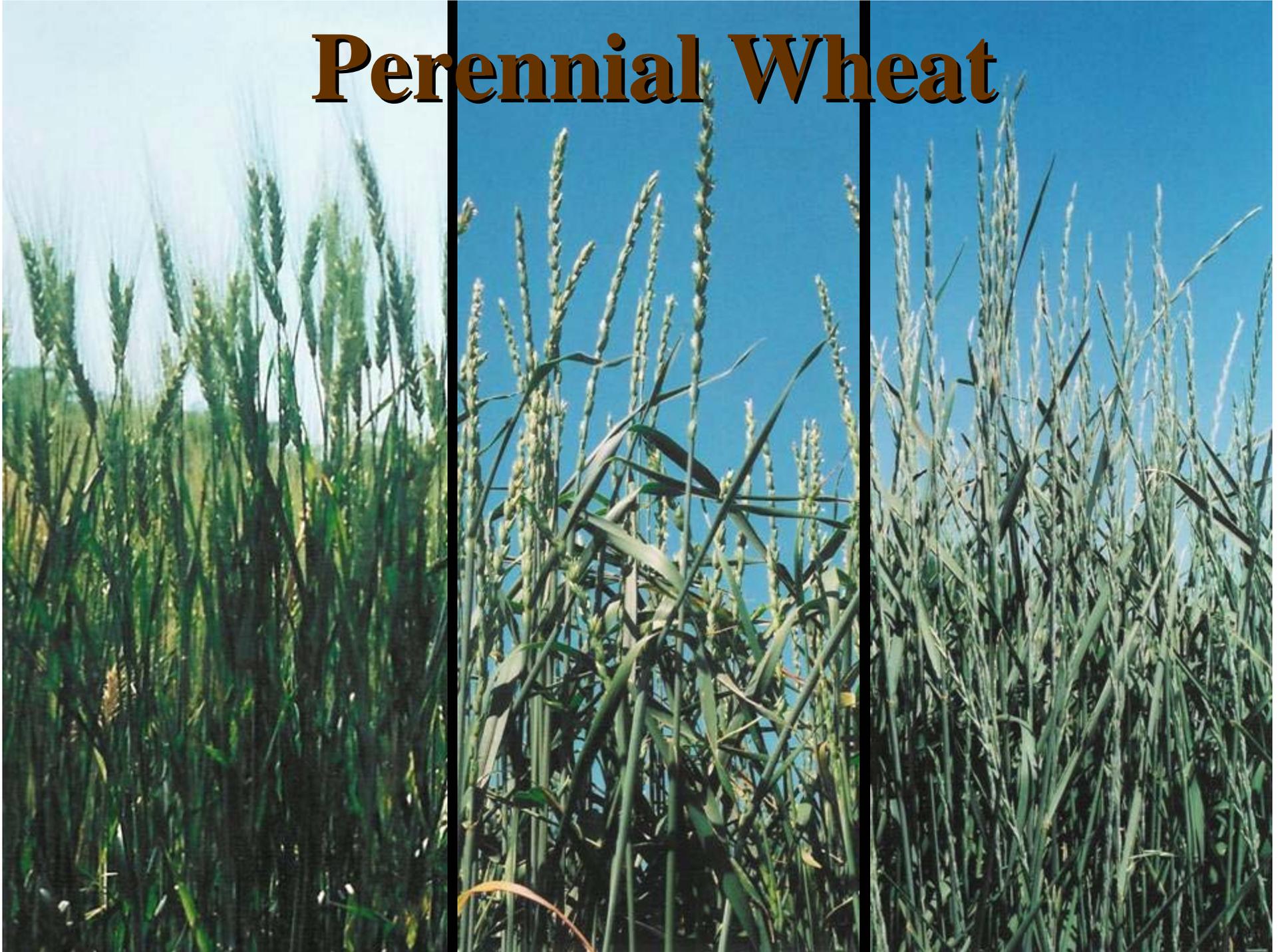


perennial sorghum

annual sorghum



Perennial Wheat





September, 2005: Field trial of 1000 intermediate wheatgrass plants divided into 3 clonal replicates each





X



Helianthus annuus

H. maximiliani

June 2006: Bundleflower breeding nursery

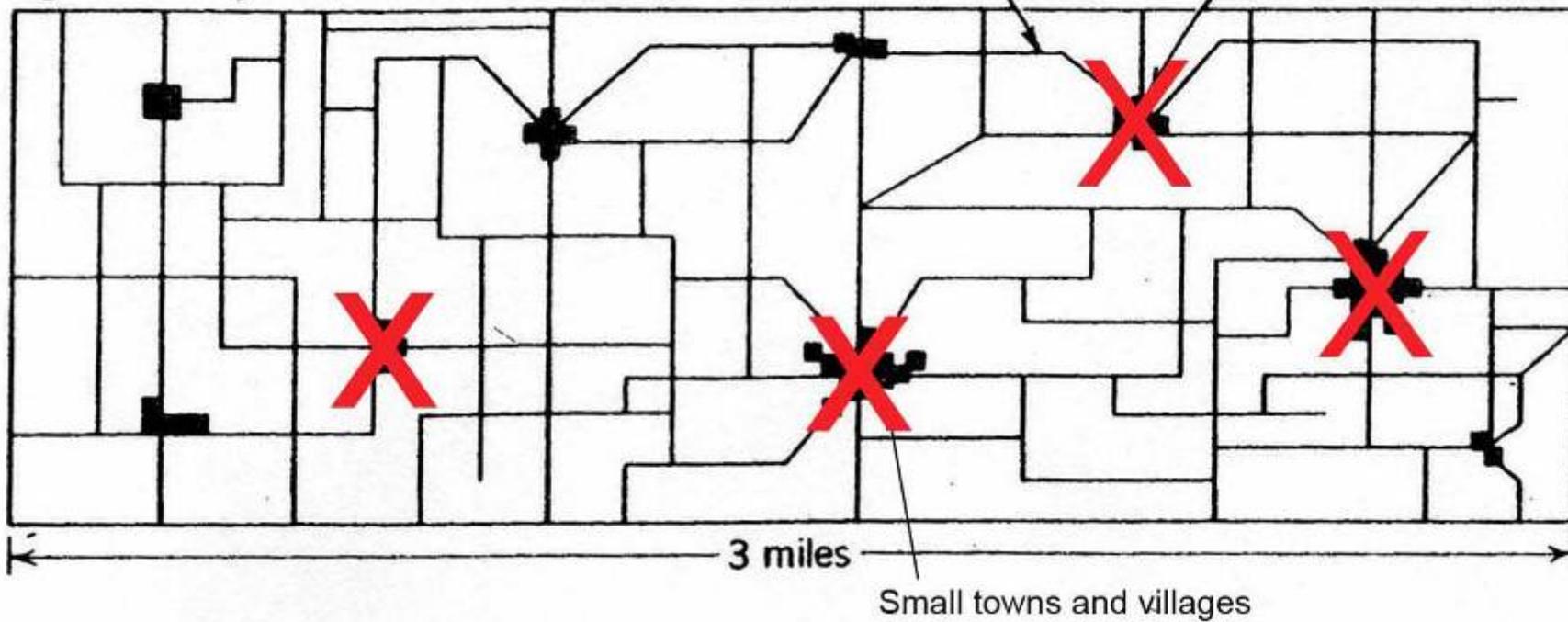




Agricultural system, Kansas

Country roads

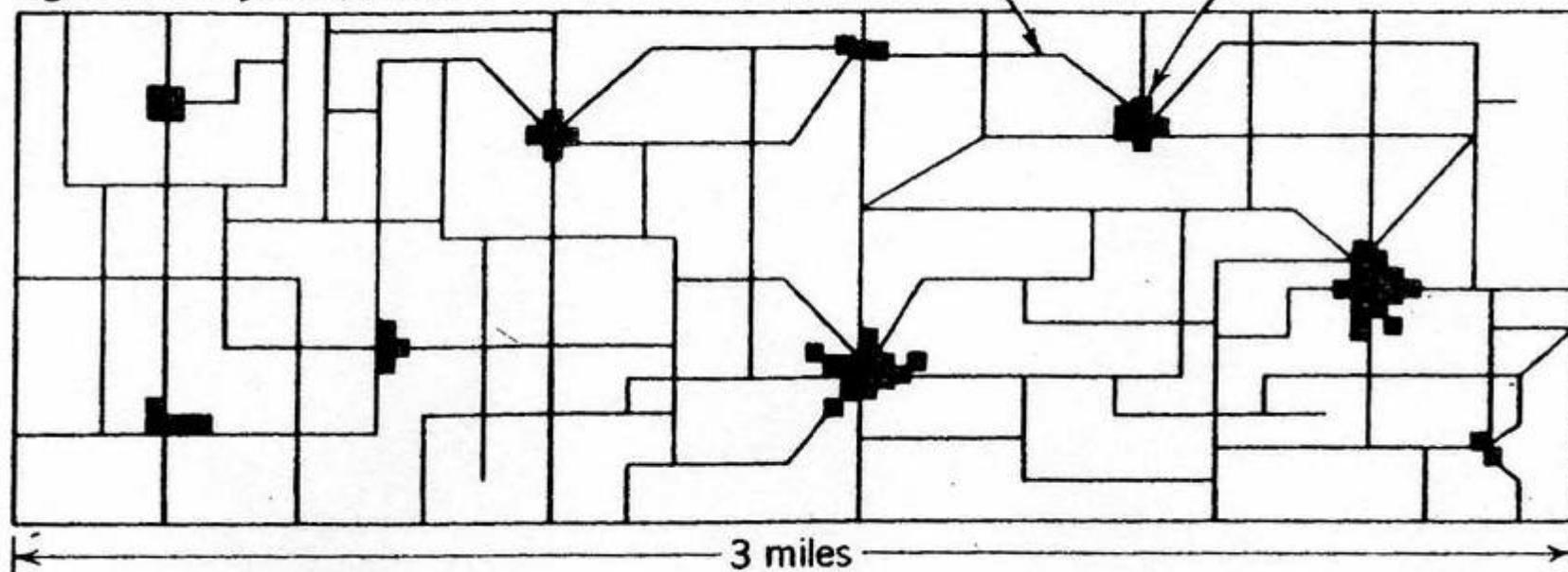
Houses



Agricultural system, Kansas

Country roads

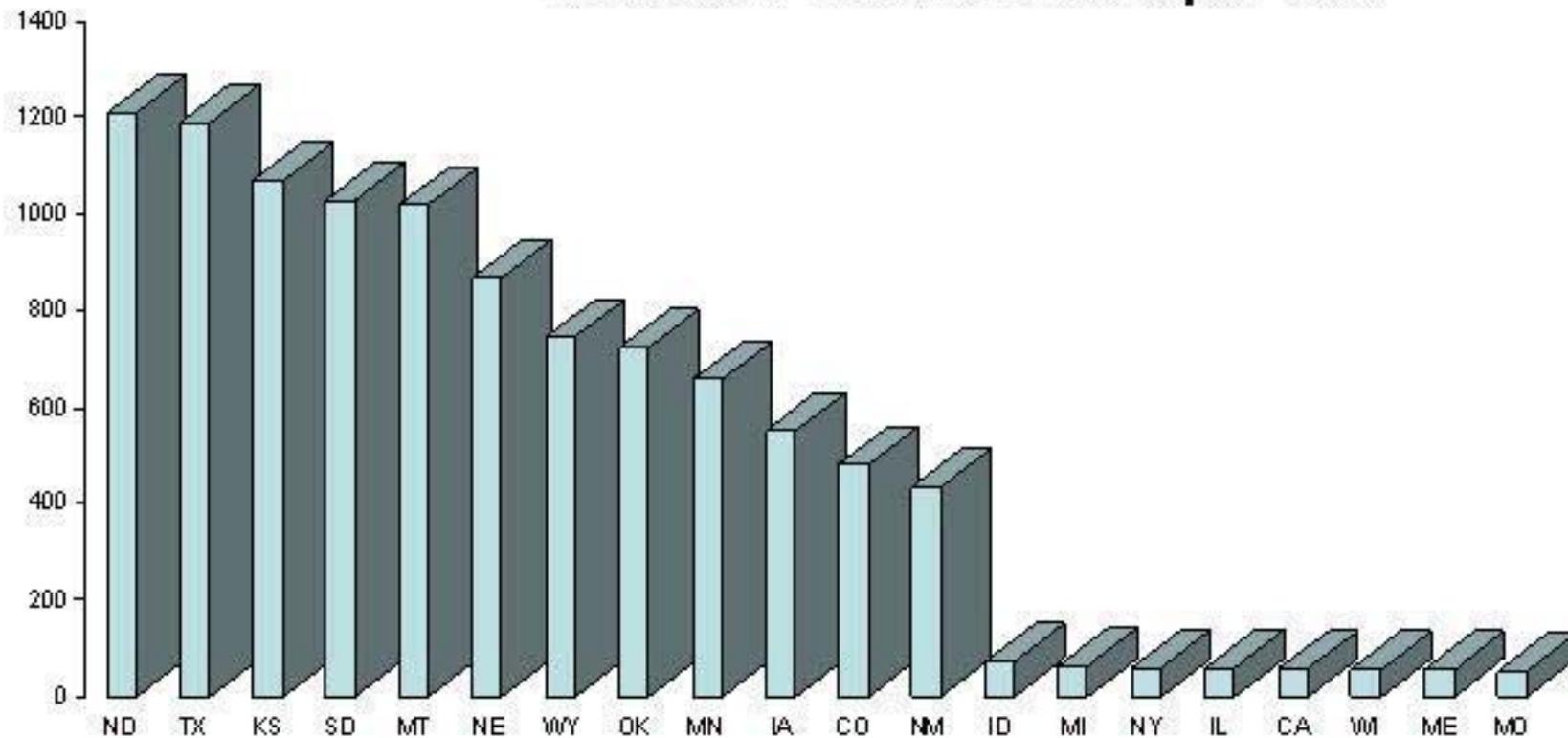
Houses







Top Twenty States Potential Wind Energy in Billions of Kilowatt Hours per Year



Source: Dept. of Energy, Pacific Northwest Laboratory, August 1991. PNL-7789

