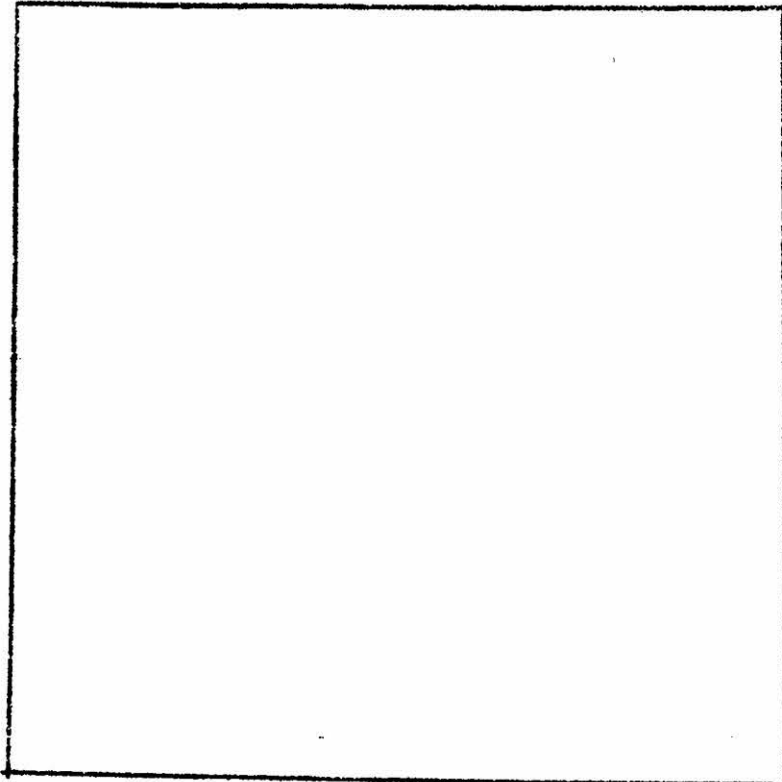


Fire Ecology  
Exam No. 1  
2/28/83

(15)

1. Given the block of land below of 2,000 acres, prepare a burning prescription. Assume the vegetation is chained juniper with 2,000 lb/acre of fine fuel. Also assume that the area is level. Show location and width of firelines.



(40) 2. Multiple choice. All or none of the answers may be correct.  
Circle correct answers.

- a. Dominant grass species in the shortgrass prairie are (1) sideoats grama, (2) tall grass, (3) blue grama and (4) buffalograss.
- b. Dominant trees in the southern mixed prairie include (1) honey mesquite, (2) eastern red cedar, (3) Ashe juniper, and (4) liveoak.
- c. Dominant grasses in the tallgrass prairie in Kansas Flint Hills include (1) little bluestem, (2) tobosagrass, (3) green sprangletop, and (4) big bluestem.
- d. Dominant grasses in aspen parkland include (1) blue grama, (2) rough fescue, (3) western porcupine grass, and (4) smooth brome.
- e. Shrubs in the tallgrass prairie that are favored by fire include (1) leadplant, (2) sumac, (3) western snowberry, and (4) eastern red cedar.
- f. Plant species that are generally susceptible to severe damage by fire when burned during the dormant season include (1) alkali saccaton, (2) forbs, (3) leafy bunchgrasses, and (4) black grama.
- g. Dominant trees in the pinyon-juniper zone in Nevada and Utah include (1) singleleaf pinyon, (2) double leaf pinyon, (3) Utah juniper, and (4) one-seed juniper.
- h. In the sagebrush-grass community, vigorous sprouting shrubs include (1) basin big sagebrush, (2) mountain big sagebrush, (3) low sagebrush, and (4) black sagebrush.
- i. Palatable shrubs or trees (for cattle) that respond favorably to fire include (1) honey mesquite, (2) aspen, (3) fourwing saltbush, and (4) flameleaf sumac.
- j. Unpalatable shrubs or trees that are not favored by fire on a near term basis include (1) broom snakeweed, (2) basin big sagebrush, (3) burrowweed, and (4) soapweeds.

(12) 3. How was the Curtis Prairie in Wisconsin regenerated?

(6) 4. What were the major factors that kept pinyon-juniper stands from spreading into grasslands historically?

(5) 5. How will repeated fires affect frequency and cover in community dominated by sprouting shrubs?

(22) 6. Fill in the blanks.

- a. Threshold conditions for burning down standing mesquite stems include relative humidity less than \_\_\_\_\_ % and average wind speed above \_\_\_\_\_ mph.
- b. Fuel for drip torches is a mixture of \_\_\_\_\_ % diesel and \_\_\_\_\_ % gasoline.
- c. In the sagebrush-grass region \_\_\_\_\_ big sagebrush grows on the driest sites, and \_\_\_\_\_ big sagebrush grows on the wettest sites.
- d. In the semidesert grass-shrub type fire frequency was about \_\_\_\_\_ years.
- e. \_\_\_\_\_ is an example of a high volatile fuel and \_\_\_\_\_ is an example of a low volatile fuel.
- f. Assuming that there is no wind, a fire moving down a steep slope (-70 to -40%) will spread \_\_\_\_\_ ft/min, where as a fire moving up a steep slope (+40 to +70%) will spread \_\_\_\_\_ ft/min.