

**California Wildlife Habitat Relationships System
California Department of Fish and Game
California Interagency Wildlife Task Group**

Pasture

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Vegetation

Structure-- Pasture vegetation is a mix of perennial grasses and legumes that normally provide 100 percent canopy closure. Height of vegetation varies, according to season and livestock stocking levels, from a few inches to two or more feet on fertile soils before grazing. Old or poorly drained pastures may have patches of weeds in excess of two feet in height.

Composition-- The mix of grasses and legumes varies according to management practices such as seed mixture, fertilization, soil type, irrigation, weed control, and the type of livestock on the pasture. Plant species seeded in pastures also vary with geographic area. In southern California, Bermuda grass is prevalent. In northern California, ryegrasses, tall fescue, Dallisgrass, Ladino clover, Salina strawberry clover, and trefoils are preferred (George et al. 1980). Many California farmers include irrigated pasture in their crop rotation system (Raguse et al. 1967).

Other Classifications-- Most vegetation classification systems include irrigated pasture in more general categories, such as Agriculture (California Department of Fish and Game, 1966), Urban/Agriculture (Parker and Matyas. 1981).

Habitat Stages

Vegetation Changes-- Height and density of vegetation in irrigated pastures depends on cultural and grazing management practices. Length of growing season, soil type, seedbed preparation, seed mix, fertilization, drainage, manure spreading, mowing, and weed control, all influence the composition, density and height of irrigated pasture vegetation. Also the type of livestock, stocking rates and duration of grazing impact the composition, density and height of irrigated pasture vegetation.

Duration of Stages-- Irrigated pastures are often a permanent agricultural habitat, established on soils not suitable for other crops and where an ample water supply is available. It is recommended that seeding to establish or re-establish irrigated pastures be done in the fall; however, spring plantings are sometimes made. Re-establishment intervals vary with the management. With proper management, irrigated pastures will remain productive for over 30 years.

Biological Setting

Habitat-- Pastures often occur in association with agricultural habitats (CRP and OVN). Moreover, irrigated pastures can be found adjacent to habitats such as Valley Foothill Riparian (VRI), Mixed Chaparral (MCH), Coastal Scrub (CSC), Fresh Emergent Wetland (FEW), Annual and Perennial Grassland (AGS, PGS) eastside habitats such as Sagebrush (SGB) and Bitterbrush (BBR) as well as various desert habitats.

Wildlife Considerations-- Pastures are used by a variety of wildlife depending upon geographic area and types of adjacent habitats. Ground-nesting birds, including waterfowl, pheasant, and sandhill crane, nest in pastures if adequate residual vegetation is present at the onset of the nesting season. Some of the highest pheasant counts by Department of Fish and Game biologists have been recorded in irrigated pastures in Stanislaus County. Flood irrigation of pastures provides feeding and roosting sites for many wetland-associated birds, including shorebirds, wading birds, gulls, waterfowl, and raptors. Antelope, deer, and elk also graze these pastures when they provide adequate, adjacent escape cover. The endangered Aleutian goose in Del Norte County and the Sacramento and San Joaquin valleys requires pastures that are sufficiently grazed to keep them low and open. In the Grasslands Resource Conservation District of Merced County, cultural methods are commonly modified so that pasture can be flooded in fall and winter for waterfowl hunting and grazed in summer by livestock.

Physical Setting

Pastures are planted on flat and gently rolling terrain. Flat terrain is irrigated by the border and check method of irrigation, except on sandy soils or where water supplies are limited. Pastures established on sandy soils or hills are sprinklered. Hilly lands also use wild flooding; that is, ditches that follow the grade along ridges and hillsides, where water is released at selected points along the ditch. Climate influences the length of growing season. For example, pastures at higher elevations or in the north have a shorter growing season.

Distribution

A total of 1.1 million acres of irrigated pasture were listed in the County Agricultural Commissioner's Annual Reports for 1983, as compiled by the California Crop and Livestock Reporting Service. These pastures are in every county in California except San Francisco. Imperial County has the greatest acreage, followed by Siskiyou, Merced, Stanislaus, and Modoc counties. Coastal counties contained 5.6 percent and Central Valley counties 52 percent of the pastures in the State. Pasture occurs below sea level in the Imperial Valley and above 4500 feet in Modoc County. In recent years, small pasture have increased due to small acreage lot development (George et al. 1980).

Literature Cited

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