sufficiently dense to be termed forest. Most of the stands are located on the summit of the axis of the range and on low angle north slopes above 700m. The species is also commonly a constituent of old growth woodlands on low angle north slopes at similar elevations. These include canyon and coast live oaks, big cone Douglas fir, and other trees.

California walnuts rarely exist within stands of valley oak woodland and forest. However, they are frequent on edges, including road banks, and in woodland bordering intermittent streams which traverse stands of oaks.

In the western headwaters of Rice Canyon located 1 km northeast of the intersection of the Oat Mountain Motorway and the fire road, mixed hardwood woodlands exist adjacent to valley oak woodlands. Dominant trees include valley, coast live, and canyon oaks, California black walnut, flowering ash, and California bay laurel. The understory includes young trees, poison oak, snowberry, hollyleaf redberry, and hillside gooseberry. Extensive understory rarely exists beneath pure stands of valley oaks within these mountains.

Woodlands of the type described above are rare. A few mature valley oaks are embedded in walnut-ash woodlands located beside the East Canyon Motorway near the top of that canyon. Along the Corral Sunshine Motorway located on the ridge south of Bee Canyon, walnuts border valley oaks and form stands in grasslands surrounded by oak woodlands. Similar vegetation occurs west of the junction of the Sunshine and Oat Mountain motorways.

It is evident that past fires have created large openings in oak woodlands enabling colonization by walnuts and other trees. The scarcity of walnut and understory in many stands of valley oak is attributed to marginal soil moisture during dry weather, aggravated by competition with oaks for soil moisture.

With the exception of the north slope, Oat Mountain at 1034-1094 m holds woodland and savanna composed of valley oak and California lack walnut, with the oak more abundant.

Occurrence in the big cone Douglas fir-canyon live oak-coast live oak forest—This vegetation type forms dense forests on steep slopes at the heads of canyons and in narrow canyons with permanent streams. Examples are at the heads of Sunshine, East and Wiley canyons and at several locations in the large Rice Canyon drainage and in Bee Canyon. California bay laurel and big leaf maple are frequently present in the community. Apparently California walnut is excluded due to



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