

**NOTES:**

**PLANTS IN HAWAII THAT ARE EATEN BY GOATS**

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**ABSTRACT**

Goats will eat a wide variety of plant species including many weeds and palatable portions of certain shrubs and trees. A list of 77 species of plants eaten by goats in Hawaii has been compiled. About thirty percent of the plants listed are classified as noxious plants or Hawaiian weeds. The list includes comments on how palatable the plants are to goats and at what stage they are most likely to be eaten.

**KEY WORDS:** Goats, plants, palatability, stage of growth, Hawaii

**GOAT GRAZING CHARACTERISTICS**

Goats have been used successfully for the control of undesirable weeds and brush and to increase the utilization of vegetation on grazing lands (Davis et al., 1975; Norton and Deery, 1985; Radcliffe, 1985). In many cases, goats have actually complimented cattle and sheep grazing the same pasture or range because of their unique grazing behavior and plant selections (Davis et al, 1975; Clark et al., 1982). Goats prefer to forage at or above eye level and will often select browse over grasses or weeds. However, the percentage of browse, grasses, or weeds selected by goats is dependant upon factors such as stocking rate, the availability of different plant species, and the stage of growth of certain browse, grasses, or weeds (Lu and Coleman, 1986).

Goats are better opportunistic feeders than cattle or sheep. They normally select from a wide variety of plant parts and plant species and therefore, are better suited to diet adaption under various range conditions (Fraps and Corey, 1940 and Taylor, 1985). Goats will eat pasture plants normally grazed by cattle or sheep, but their greater tolerance for bitter tasting plants and preference for the less succulent and often more fibrous forage give them more diet flexibility--including numerous woody plants and weeds (Lu and Coleman, 1986). This article provides a list of plants commonly found in Hawaii that are eaten by goats. Information on their general appeal to goats and the growth stages at which they are usually eaten is also given.

**PLANTS IN HAWAII EATEN BY GOATS**

Tables 1, 2, and 3 provide a list of trees, shrubs, herbs, and rushes in Hawaii that are eaten by goats. About thirty percent of the plants listed are classified as noxious plants or Hawaiian

weeds (Hasselwood and Motter, 1983). The list is not an exhaustive list, but it includes many plants commonly found in pastures and on grazing lands in the state.

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Table 1. Trees and Shrubs<sup>a</sup>

Scientific name	Common name	Highly palatable	Moderately palatable	Eaten occasionally
<u>Acacia confusa</u>			all stages	
<u>Acacia decurrens</u>	black wattle		all stages	
<u>Acacia farnesiana</u>	klu		all stages	
<u>Acacia koa</u>	koa		all stages	
<u>Acacia mearnsii</u>	black wattle		flowering*	
<u>Acacia parramattensis</u>			all stages	
<u>Atriplex eardleyae</u>			all stages	
<u>Atriplex lenitifolia</u>	quailbush, lens scale		all stages	
<u>Atriplex semibaccata</u>	Australian saltbush		all stages	
<u>Atriplex suberecta</u>			all stages	
<u>Eucalyptus albens</u>	white box		flowering*	
<u>Eucalyptus melliodora</u>	yellow box		sucker regrowth	
<u>Leucaena leucocephala</u>	Koa haole	all stages		
<u>Melochia umbellata</u>		all stages		
<u>Rubus agustus</u>	'ohe-lo'ele'ele	all stages		
<u>Rubus ellipticus</u>	yellow Himalayan raspberry	all stages		
<u>Rubus hawaiiensis</u>	'akalakala	all stages		
<u>Rubus macraei</u>	'akalakala	all stages		
<u>Rubus niveus</u>	mysore raspberry hill raspberry	all stages		
<u>Rubus penetrans</u>	blackberry	all stages		
<u>Trema orientalis</u>	gunpowder tree	all stages		
<u>Ulex europaeus</u>	gorse	all stages		
<u>Ventilago viminalis</u>	supplejack	all stages		

<sup>a</sup>Adapted from information published by Mitchell and Miller, 1986

\* These plants are readily eaten by goats, but palatability depends on the stage of growth. Most have greatest appeal at flowering.

Table 2. Herbs<sup>a</sup>

Scientific name	Common name	Highly palatable	Moderately palatable	Eaten occasionally
<u>Bidens pilosa</u>	Spanish needle, Kinehe		all stages	
<u>Carduus pychocephalus</u>	slender thistle			all stages
<u>Cisium vulgare</u>	bull thistle slender thistle		all stages	
<u>Desmodium</u> spp.			all stages	
<u>Dolichos lablab</u>	lablab	all stages		
<u>Erodium cicutarium</u>	heron's bill		flowering*	
<u>Hypercium perforatum</u>	St. John's wort			all stages
<u>Lactuca serriola</u>	prickly lettuce	all stages		
<u>Lepidium didymum</u>	swine cress		flowering*	
<u>Mimosa pudica</u>	sensitive plant	all stages		
<u>Marrubium vulgare</u>	common horehound white horehound		flowering* flowering*	
<u>Medicago sativa</u>	alfalfa, lucerne, 'alapapa		flowering*	
<u>Phytolacca octandra</u>	pokeweed		flowering*	
<u>Plantago lanceolata</u>	plantain		flowering*	
<u>Plantago major</u>	plantain		flowering*	
<u>Sisymbrium altissimum</u>	humble mustard		flowering*	
<u>Sisymbrium officinale</u>	hedge mustard		flowering*	
<u>Trifolium arvense</u>	rabbit foot clover			mature
<u>Trifolium dubium</u>	small hop clover			mature
<u>Trifolium glomeratum</u>				mature
<u>Trifolium hybridum</u>	alsike clover			mature
<u>Trifolium incarnatum</u>	crimson clover Haitian clover			mature mature
<u>Trifolium pratense</u>	red clover			mature
<u>Trifolium repens</u>	white clover			mature
<u>Trifolium resupinatum</u>	Persian clover			mature
<u>Trifolium subterraneum</u>	subterranean clover			mature
<u>Verbena bonariensis</u>	petty spurge		flowering*	

<sup>a</sup>Adapted from information published by Mitchell and Miller, 1986

\* These plants are readily eaten by goats, but palatability depends on the stage of plant growth. Most have greatest appeal at flowering.

**Table 3. Grasses and Rushes<sup>a</sup>**

Scientific name	Common name	Highly palatable	Moderately palatable	Eaten occasionally
<u>Aristida adscensionis</u>			all stages	
<u>Brachiaria mutica</u>	paragrass	all stages		
<u>Chloris divaricata</u>	star grass		flowering*	
<u>Chloris inflata</u>	swollen fingergrass		flowering*	
<u>Chloris radiata</u>	plush grass		flowering*	
	radiate fingergrass		flowering*	
<u>Cyperus alternifolius</u>	'ahu'awa haole	all stages		
<u>Cyperus adscensionis</u>		all stages		
<u>Cyperus compressus</u>		all stages		
<u>Cyperus difformis</u>		all stages		
<u>Cyperus gracilis</u>	McCoy grass	all stages		
<u>Cyperus halpan</u>		all stages		
<u>Cyperus laevigatus</u>	makaloa, ehu'awa	all stages		
<u>Cyperus papyrus</u>	papyrus, kaluha	all stages		
<u>Cyperus rotundus</u>	nut grass, kilio'opu, mau'u moke	all stages		
<u>Cyperus trachysanthos</u>	pa'uka'a	all stages		
<u>Cyperus virens</u>		all stages		
<u>Danthonia pilosa</u>	hairy oatgrass		flowering*	
<u>Juncas acuminatus</u>			flowering*	
<u>Juncas bufonius</u>	toad rush		flowering*	
<u>Juncas ensifolius</u>			flowering*	
<u>Juncas planifolius</u>			flowering*	
<u>Juncas polyanthemos</u>			flowering*	
<u>Juncas tenuis</u>			flowering*	
<u>Lolium multiflorum</u>	Italian ryegrass	all stages		
<u>Lolium perenne</u>	perennial ryegrass	all stages		
<u>Melinis minutiflora</u>	molassesgrass	all stages		
<u>Stipa cernua</u>	needle grass		all stages	

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