UF IFAS Extension UNIVERSITY of FLORIDA

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Agronomic Crop Species and Variety Selection[1]

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This document describes the common forage and row crops grown in Florida, the season of year they are grown, and the part of the state they are most adapted to.

In choosing the genus, species, or variety of crop to be grown, the following seven characteristics should be kept in mind: (1) growth cycle; (2) growing season; (3) adaptation to soils and climate; (4) uses of the crops; (5) yield and quality of the harvested product; (6) resistance to insects, diseases, and nematodes; and (7) market acceptability of the variety.

New or unfamiliar species and/or varieties should not be planted on large acreages until they have been evaluated and performed satisfactorily for a number of years on relatively small areas on a particular farm. Even if a particular species or variety has performed well in experimental or other trials, a grower should be familiar with the characteristics and particular cultural requirements of the species or variety before large acreages are planted. Many crops have been genetically transformed to include herbicide or insecticide traits or combinations with as many as 5–7 stacked traits in one plant. Parent lines may have been widely grown but new gene insertions can result in different performance. Often, new varieties of row crops are released with no more than 1 or 2 years of testing, and there isn't sufficient data on how these will do under different climatic conditions.

The potential for an introduced species or variety to become a noxious, invasive, or otherwise undesirable plant should be considered before the initial planting. Check to be sure that any plant selected is not on the invasive or noxious weed lists, which may prohibit planting or propagation. Some desirable plants may become difficult to control in other crops. For example, crotalaria and hairy indigo were introduced into Florida as green-manure crops, but soon became major pests in other crops. Some grasses such as cogongrass may root so deep that they are difficult to control or eradicate. Some plant species may harbor diseases, nematodes, or insects that negatively impact other crops. Several of the species listed in Table 1 could be undesirable in many situations if proper precautions are not followed.

The field and forage crops that could be grown in Florida are described in Table 1 University of Georgia and Auburn have state wide variety test reports that come out yearly to see how forage and row crops do over a wide area of the Southeast (http://www.swvt.uga.edu/; http://www.aces.edu/anr/crops/varietytesting/).

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Table 1. Growth characteristics and adaptations of field and forage crops grown in Florida.

Common Name/ (Plant Family)[1]/ Scientific Name	Growth Cycle[2]	Season of Maximum Growth	Method of Propagation	Seed/lb (1000)	Section of State Where Adapted[3]			
					NW	NE	C	S
Aeschynomene (L) *Aeschynomene* spp.	A	Summer	Seed	200–220	*	*	*	*
Alfalfa (L) *Medicago sativa*	P [4]	Winter	Seed	210	*	*	*	*
Alyceclover (L) *Alysicarpus vaginalis*	A	Summer	Seed	300	*	*	*	*
Austrian winter pea (L) *Pisum arvense*	A	Winter	Seed	5	*	*	*	*
Bahiagrasses (G) *Paspalum notatum*	P	Summer	Seed	120–240	*	*	*	*
Barley (G) *Hordeum vulgare*	A	Winter	Seed	13	*	*	*	*
Beggarweed, Florida (L) *Desmodium purpureum*	A	Summer	Seed	200	*	*	*	*
Bermudagrasses (G) *Cynodon dactylon*	P	Summer	S&V	1800	*	*	*	*
Buffelgrass (G) *Pennisetum ciliare*	P	Summer	Seed	3200	*	*	*	*
Bur-clover, California (L) *Medicago hispida*	A	Winter	Seed	150	*	*	*	*
Bur-clover, spotted (L) *Medicago arabica*	A	Winter	Seed	230	*	*	*	-
Canola (B) *Brassica napus*	A	Winter	Seed	120	*	*	-	-
Caribgrass (G) *Eriochloa polystachya*	P	Summer	Veg.	---	-	-	-	*
Carinata (B) *Brassica carinata*	A	Winter	Seed	120	*	*	*	-
Carpetgrass (G) *Axonopus affinis*	P	Summer	Seed	1250	*	*	*	*
Cassava (Sp) *Manihot esculenta*	P [4]	Summer	Veg.	---	*	*	*	*
Castorbean (Sp) *Ricinus communis*	P	Summer	Seed	1	*	*	*	*
Chufa (Se) *Cyperus esculentus*	P [4]	Summer	Veg.	---	*	*	*	-
Clover, arrowleaf (L) *Trifolium vesiculosum*	A	Winter	Seed	400	*	-	-	-
Clover, berseem (L) *Trifolium alexandrinum*	A	Winter	Seed	200	-	-	*	*
Clover, crimson (L) *Trifolium incarnatum*	A	Winter	Seed	150	*	-	-	-
Clover, hop (L) *Trifolium campestre*	A	Winter	Seed	1000	*	*	*	-
Clover, hop, large (L) *Trifolium aureum*	A	Winter	Seed	2200	*	*	*	-
Clover, hop, small (L) *Trifolium dubium*	A	Winter	Seed	1000	*	*	*	-
Clover, Persian (L) *Trifolium resupinatum*	A	Winter	Seed	640	*	*	*	*

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					NW	NE	C	S
Clover, rose (L) *Trifolium hirsutum*	A	Winter	Seed	170	*			
Clover, red (L) *Trifolium pratense*	P [4]	Winter	Seed	275	*	*	*	*
Clover, sub (L) *Trifolium subterraneum*	A	Winter	Seed	60	*	-	-	-
Clover, white (L) *Trifolium repens*	P [4]	Winter	Seed	800	*	*	*	*
Clover, white, Ladino (L) *Trifolium repens*	P [4]	Winter	Seed	800	*	*	*	*
Corn (G) *Zea mays*	A	Summer	Seed	1.1–1.8	*	*	*	*
Cotton, Sea Island (M) *Gossypium barbadense*	P [4]	Summer	Seed	4	*	*	*	-
Cotton, upland (M) *Gossypium hirsutum*	P [4]	Summer	Seed	4	*	*	*	-
Cowpea (L) *Vigna uniquiculata*	A	Summer	Seed	2–6	*	*	*	*
Crotalaria, lance (L) *Crotalaria lanceolata*	A	Summer	Seed	170	*	*	*	*
Crotalaria, showy (L) *Crotalaria spectabilis*	A	Summer	Seed	33	*	*	*	*
Crotalaria, slenderleaf (L) *Crotalaria intermedia*	A	Summer	Seed	97	*	*	*	*
Crotalaria, striped (L) *Crotalaria mucronata*	A	Summer	Seed	80	*	*	*	*
Dallisgrass (G) *Paspalum dilatatum*	P	Summer	Seed	230	*	-	-	-
Digitgrasses (G) *Digitaria decumbens*	P	Summer	Veg.	---	-	-	*	*
Fescue tall (G) *Festuca arundinacea*	P	Winter	Seed	230	*	*	*	*
Guineagrass (G) *Panicum maximum*	P	Summer	Seed	1000	-	-	*	*
Limpograss (G) *Hermarthria altissima*	P	Summer	Veg.	---	*	*	*	*
Indigo, hairy (L) *Indigofera hirsuta*	A	Summer	Seed	200	*	*	*	*
Johnsongrass (G) *Sorghum halepense*	P	Summer	Seed	130	*	*	*	*
Kudzu (L) *Pueraria thumbergiana*	P	Summer	S&V	40	*	*	*	*
Hemp, Sunn *Crotalaria junceae*	A	Summer	Seed	15	*	*	*	*
Lespedeza (L) *Lespedsa striata*	A	Summer	Seed	200–340	*	*	*	*
Lovegrass, weeping (G) *Eragrostis curvula*	P	Summer	Seed	1500	*	*	*	*
Lupine, blue (L) *Lupinus angustifolius*	A	Winter	Seed	2	*	*	*	-
Lupine, yellow (L) *Lupinus luteus*	A	Winter	Seed	3.6	*	*	*	-

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					NW	NE	C	S
Medic, black (L) *Medicago lupilina*	A	Winter	Seed	280	*	*	*	-
Molassesgrass (G) *Melinis minutiflorum*	P	Summer	Seed	6800	-	-	*	*
Napiergrass (G) *Pennisetum purpureum*	P	Summer	Veg.	---	*	*	*	*
Oats (G) *Avena sativa*	A	Winter	Seed	13	*	*	*	*
Pangolagrass (G) *Digitaria decumbens*	P	Summer	Veg.	---	-	-	*	*
Paragrass (G) *Panicum purpurascens*	P	Summer	Veg.	---	-	-	-	*
Pea, field (L) *Pisum sativum*	A	Winter	Seed	4	*	*	*	*
Peanut (L) *Arachis hypogea*	A	Summer	Seed	0.5–1.0	*	*	*	-
Peanut, perennial (L) *Arachis glabrata*	P	Summer	Veg.	---	*	*	*	*
Pearlmillet (G) *Pennisetum glaucum*	A	Summer	Seed	88	*	*	*	*
Pigeon Pea (L) *Cajanus cajun*	A	Summer	Seed	5.5–6.0	*	*	*	*
Ramie (N) *Beohmeria nivea*	P	Summer	Veg.	---	-	-	-	*
Rape (B) *Brassica napus*	B	Winter	Seed	104	*	*	*	*
Rescuegrass (G) *Bromus catharticus*	A	Winter	Seed	62	*	*	-	-
Rhodesgrass (G) *Chloris gayana*	P	Summer	Seed	2000	-	-	*	*
Rice (G) *Oryza sativa*	A	Summer	Seed	15–25	*	*	*	*
Roughpea (L) *Lathyrus hirsutus*	A	Winter	Seed	15	*	-	-	-
Rye (G) *Secale cereale*	A	Winter	Seed	18	*	*	*	*
Ryegrass, Italian (G) *Lolium multiflorum*	A	Winter	Seed	227	*	*	*	*
S. humilis (L) *Stylosanthes guianesis*	A	Summer	Seed	180–220	-	-	*	*
St. Augustinegrass (G) *Stenotaphrum secundatum*	P	Summer	Veg.	---	-	-	*	*
Sericea (L) *Lespedeza cuneata*	P	Summer	Seed	360	*	-	-	-
Sesbania (L) *Sesbania exaltata*	A	Summer	Seed	44	*	*	*	*
Sorghum (G) *Sorghum bicolor*	A	Summer	Seed	28	*	*	*	*
Sourclover (L) *Melilotus indica*	A	Winter	Seed	300	*	*	*	*

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					NW	NE	C	S
Soybean (L) *Glycine max*	A	Summer	Seed	2.8–8	*	*	*	*
Stargrass, (G) *Cynodon aethiopicus*	P	Summer	Veg.	---	-	-	*	*
Sudangrass (G) *Sorghum vulgare sudanese*	A	Summer	Seed	55	*	*	*	*
Sugarcane (G) *Saccharum* sp.[5]	P	Summer	Veg.	---	*	*	*	*
Sweetclover (L) *Melilotus alba*	A	Winter	Seed	250	*	*	*	*
Sunflower (Thistle) *Helianthus annuus*	A	Summer	Seed	3–9	*	*	*	*
Tobacco (Nightshade) *Nicotiana tabacum*	A	Summer	Seed	5000	*	*	*	-
Torpedograss (G) *Panicum repens*	P	Summer	Veg.	500	-	-	*	*
Trefoil, big (L) *Lotus uliginosis*	P	Winter	Seed	1200	*	*	*	*
Trefoil, birdsfoot (L) *Lotus corniculatus*	P	Winter	Seed	400	*	*	*	*
Triticale (G) *Triticosecale*	A	Winter	Seed	---	*	*	-	-
Vaseygrass (G) *Paspalum urvillei*	P	Summer	Seed	440	*	*	*	*
Velvetbean (L) *Mucna pruriens*	A	Summer	Seed	0.8–1.2	*	*	*	*
Vetch, common (L) *Vicia sativa*	A	Winter	Seed	8	*	-	-	-
Vetch, hairy (L) *Vicia villosa*	A	Winter	Seed	18	*	-	-	-
Vetch, monantha (L) *Vicia arthculata*	A	Winter	Seed	12	*	-	-	-
Vetch, woollypod (L) *Vicia dasycarpa*	A	Winter	Seed	10	*	-	-	-
Wheat (G) *Triticum aestium*	A	Winter	Seed	12–20	*	*	*	*

[1] A = annual; P = perennial; B = biennial
[2] L = Legume; G = Grass; M = Mallow; B = Brassica; Sp = Spurge; Se = Sedge; N = Nettle
[3] NW = northwest; NE = northeast; C = central; S = south
[4] Grown as an annual under Florida conditions
[5] All sugarcane varieties currently grown commercially are hybrids produced from crosses of *Saccharum* species, the most important of which are *S. officinarum* and *S. spoutaneum*.