

Preliminary Observations of Perennial Peanut Survival in Northwest Georgia

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RATIONALE

Summer forage production in the southeastern US is generally abundant, but often of marginal nutritional value. Development and expansion of production from perennial peanut have provided germplasm that is adapted to high summer temperatures and offers high forage quality, particularly since the release of the cultivar 'Florigraze' in 1981. Warming temperatures associated with changing climate warrant evaluation of perennial peanut at more northern latitudes.

OBJECTIVES

Provide initial evaluation of the survival and potential performance of commercially available perennial peanut germplasm in northwest Georgia at the UGA Northwest Research and Education Center (34°N).

PROCEDURES

Three forage-type ('UF-Tito,' 'UF-Peace,' and 'Apalachee') and three ground-cover-type ('Ecoturf,' 'Cowboy,' and 'Waxy Leaf') entries were established in 5'x 5' plots in randomized complete block arrangement. Nine transplants were equally spaced within each of four plots per entry on 27 July 2021. Overhead sprinkler irrigation was provided during the first week due to dry conditions. Spring survival was rated as the number of original transplants for which spring growth was observed on 11 May and 3 June 2022. Vigor or yield have not been rated.



Fig. 2. Vigorous growth of 'Waxy Leaf' 3 June 2022

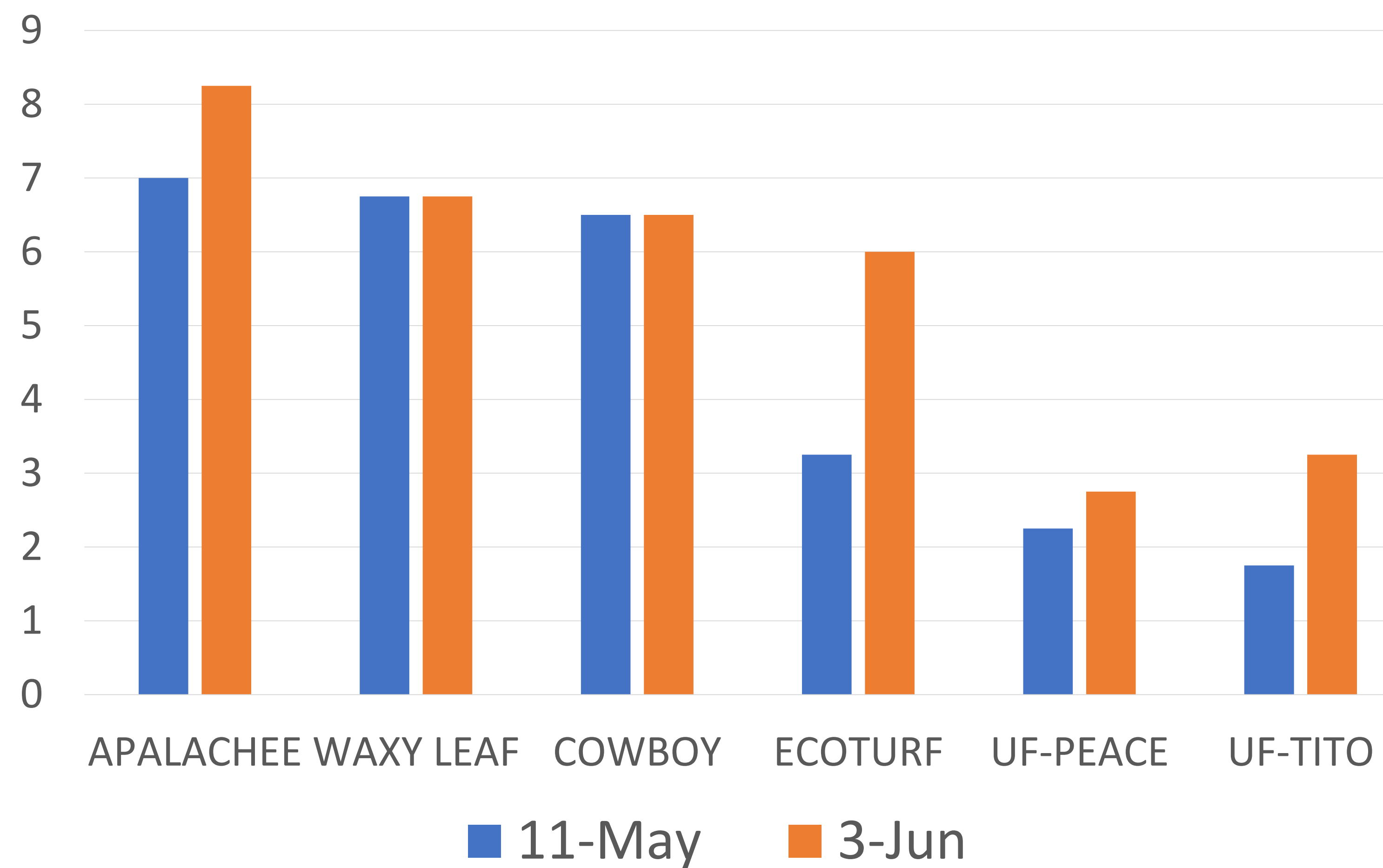


Fig. 3. Lateral expansion of 'Cowboy' 3 June 2022

Fig. 1. Spring recovery rating (surviving plants / 9 transplants) observed 11 May and 3 June 2022

Number of hours <= 32 °F

From November-10		To March-15	
		Valdosta	Rome
		Number of Hours	Number of Hours
2021	2022	25.25	476.5
2020	2021	50.06	537.38
2019	2020	32.02	392.1
2018	2019	22.76	425.53

Recent accumulated winter freezing hours in south (Valdosta) and northwest (Rome) Georgia

PROGRESS OBSERVATIONS

Between 10 November 2021 and 15 March, 2022 minimum air temperatures of freezing or below were recorded on 63 days. Temperatures were below 25° on 18 days and reached an extreme low of 17.5°. Initial survival of 'Apalachee,' 'Waxy Leaf,' and 'Cowboy' were encouraging (Fig.1). Spring growth of 'Waxy Leaf' (Fig. 2) and vegetative expansion of 'Cowboy' (Fig. 3) suggest acceptable adaptation to the climate and soils of the area. Future persistence and production remain to be evaluated.



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