

Abstract #120108**Changes in Rhizoma Peanut Shoot and Root-Rhizome Characteristics during a Planting Season and Their Relationship with Rhizome Establishment Performance**

Gabriel Baracat Pedroso¹, Lynn E. Sollenberger¹, Marcelo Wallau², Jose C.B. Dubeux Jr.³, John Erickson¹, Bruno Carneiro Pedreira⁴, Fabiane Quevedo Rosa⁵, Patricia Luizão Barbosa⁶, Orlando Lucato Neto⁷ and Leonardo Felix⁸, (1)Agronomy Department, University of Florida, Gainesville, FL, (2)PO Box 110500, University of Florida, Gainesville, FL, (3)North Florida Research and Education Center, University of Florida, Marianna, FL, US, (4)EMBRAPA - Empresa Brasileira de Pesquisa Agropecuaria, Gainesville, FL, (5)Department of Forages and Agrometeorology, Federal University of Rio Grande do Sul - UFRGS, Porto Alegre, Brazil, (6)Dept. Zootecnia, University of São Paulo - ESALQ, Piracicaba, SP, Brazil, (7)Animal Science Department, University of São Paulo's "Luiz de Queiroz" College of Agriculture - ESALQ/USP, Piracicaba, Brazil, (8)Agronomy, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

Abstract Text:

Recommended planting season for rhizoma peanut (RP; *Arachis glabrata* Benth.) is January through March. Land area planted to RP annually has increased, requiring custom planters to extend planting beyond that period, and variation in rhizome quality and establishment success have been reported. The objectives of this study were to determine how shoot and root-rhizome characteristics of four RP entries ('Florigraze', 'Ecoturf', 'UF Peace', and 'UF Tito') vary during a February through August planting period and relate these changes to subsequent establishment performance in the field near Citra, FL. Herbage mass (HM), leaf area index (LAI), and root-rhizome mass (RM) were quantified biweekly in RP nursery plots of all four entries. Rhizomes were planted at the same dates (PD), and emerged shoot number (ESN) and RP ground cover (GC) were quantified 12 wk after planting. At all sampling dates (SD), Florigraze RM was less than the other entries. Variation in RM for Ecoturf, UF Peace, and UF Tito followed similar trends, decreasing slightly between the first two SD, followed by an increase to the greatest values recorded at the third SD, after which, RM plateaued. The LAI of all entries increased at a relatively slow constant rate until the sixth SD, after which it approximately doubled by the seventh. Florigraze presented the smallest LAI throughout. Variation in HM for all entries followed similar trends, increasing at relatively constant rates throughout the period, with Florigraze HM consistently being least. Shoot number and GC were least for the second PD, reflecting low RM at that date, GC was greatest following the fourth PD, and ESN was greatest at PDs one, four, and five. Florigraze ESN and GC were least at all PD. Early results suggest RP entry has greater effect on establishment performance than specific shoot or root-rhizome characteristics, but research is ongoing.

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Submitter's E-mail Address: gabrielpedroso@ufl.edu

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First Presenting Author

Presenting Author

Gabriel Baracat Pedroso
Email: gabrielpedroso@ufl.edu -- Will not be published

University of Florida
Agronomy Department
Agronomist
2601 SW Archer Road, Apt. C111
Gainesville FL 32608
USA

Second author

Lynn E. Sollenberger
Email: lesollen@ufl.edu -- Will not be published

University of Florida
Agronomy Department
3111 McCarty B
Gainesville FL 32611-0500
USA

Third author

Marcelo Wallau
Email: mwallau@ufl.edu -- Will not be published

University of Florida
PO Box 110500
Assistant Professor
3105 McCarty Hall
University of Florida,

Gainesville FL 32611
USA

Fourth author

Jose C.B. Dubeux Jr.
Email: dubeux@ufl.edu -- Will not be published

University of Florida
North Florida Research and Education Center
Dr.
3925 HWY 71
Marianna FL 32446
US

Fifth author

John Erickson
Email: jerickson@ufl.edu -- Will not be published

University of Florida
Agronomy Department
Assistant Professor
University of Florida
P.O. Box 110965, Bldg. 345
Gainesville FL 32611-0965
USA

Sixth author

Bruno Carneiro Pedreira
Email: brunocpedreira@gmail.com -- Will not be published

EMBRAPA - Empresa Brasileira de Pesquisa Agropecuaria
Dr.
3700 Windmeadows BLVD
Apt D21
Gainesville FL 32608
USA

Seventh author

Fabiane Quevedo Rosa

Email: fabiq.rosa@yahoo.com.br -- Will not be published

Federal University of Rio Grande do Sul - UFRGS
Department of Forages and Agrometeorology
7712 Av. Bento Gonçalves. Bairro Agronomia
Porto Alegre 91540000
Brazil

Eighth author

Patricia Luizão Barbosa

Email: pati.plb@usp.br -- Will not be published

University of São Paulo - ESALQ
Dept. Zootecnia
Av. Pádua Dias, 11
Piracicaba, SP 13418-900
Brazil

Ninth author

Orlando Lucato Neto

Email: orlando.lucato.neto@usp.br -- Will not be published

University of São Paulo's "Luiz de Queiroz" College of Agriculture
- ESALQ/USP
Animal Science Department
Av. Pádua Dias, 11. Bairro Agronomia.
Piracicaba 13418-900
Brazil

Tenth author

Leonardo Felix

Email: leodfelix@gmail.com -- Will not be published

Universidade Federal do Rio Grande do Sul
Agronomy
Av. Bento Gonçalves, 7712
Porto Alegre 91540-000
Brazil