Determining the Influence Peanut Commodity Meetings Have on Peanut Producers Selection of Peanut Cultivars and Fungicide Use.

A Project Completed in Partial Fulfillment of the Requirements for the Degree

Master of Science

in the Department of Agriculture Education and Communication.

Keith W. Wynn

University of Florida

2013

Table of Contents

Introduction/Conceptual Framework

Each year peanut producers have to determine which peanut cultivar to plant. Peanut producers plant peanut cultivars which have a history of producing high yields per acre in their production area. This is traditionally determined by the producer's personal experience with selected cultivars or the experience a neighboring farmer has had in recent years. In North Florida 80% of the peanuts produced over the past four years have been the cultivar, GA06G (Tillman, 2013). University of Florida Peanut Breeder Dr. Barry Tillman not only creates new cultivars of peanuts but also conducts on-farm trials in different parts of the state to determine which cultivar produces the best yields and performs the best under various growing conditions. For the past two years this county extension agent has worked with Dr. Tillman in order to conduct a peanut cultivar trial here in Hamilton County. Four peanut cultivars are selected and planted in four replications consisting of six row strips through the participating producer's field. Three to five acres of each cultivar are planted depending on the length of the rows. The producer then manages the trial along with the rest of his field. At harvest the yield is recorded and the grade is collected from each replication in order to determine the cultivar which has performed the best in the on-farm trial. This information is then presented at the Hamilton County Peanut Production Meetings during the following year in order to discuss the new cultivars which perform the best in their production area. Peanut producers could use the information generated from on-farm trials "to devise a plan that uses several varieties to spread risk of losses from disease. This information also helps in choosing varieties based on their relative maturity and disease resistance to help spread harvest and planting operations over a longer period" (Tillman, Gomillion, McKinney, Person, & Thomas, 2010, para. 9). Peanut companies which purchase peanuts from peanut shellers are starting to require peanut producers

to plant cultivars with high oleic oil chemistry in which the GA06G's only have normal oleic oil chemistry (Beasley, 2013). This means peanut producers will have to plant different cultivars of peanut in order to continue marketing their crop to the peanut sheller. The cultivars which were planted in the on-farm trials over the past two years consisted of two cultivars which had the high oleic oil chemistry. Research conducted to determine what influences the cultivars peanut producers select at planting could lead to developing alternative educational materials for presenting on-farm trial data.

Producers are also faced each year with peanut foliar and soilborne diseases. These diseases include early and late leaf spot, rust, web blotch, southern blight, Sclerotina blight, Rhizoctonia limb rot, and Cylindrocladium black rot. In order to control foliar peanut disease farmers should "follow an appropriate crop rotation scheme, use an appropriate peanut cultivar, and adhere to well-timed fungicide programs" (Mueller, Wise, Dufault, Bradley, & Chilcers, 2013, p. 64). University of Florida Plant Pathologist Nicholas Dufault is concerned with developing peanut fungicide programs consisting of different modes of action in order to avoid fungicide resistance. "Peanut farmers are strongly encouraged to practice careful resistance management to prolong the use of currently available fungicides" (Mueller, Wise, Dufault, Bradley, & Chilcers, 2013, p. 64). In order to aid peanut producers with determining appropriate peanut fungicide programs this agent has conducted two peanut fungicide on-farm trials with the assistance of Dr. Nicholas Dufault. These on-farm trials were conducted using four different fungicide programs representing four different chemical companies. Each program was replicated four times throughout a local producer's peanut field. The trials over the past two years were each approximately forty acres and were treated on a by-weekly bases consisting of seven chemical applications. The trial is randomly scouted throughout the growing season to

determine any discrepancies and at harvest the yield and grade is recorded from each replication in order to determine which fungicide program performed the best in the on-farm trial. This information is also presented at the Hamilton County Peanut Production Meetings during the following year in order to discuss the fungicide programs which performed the best in their production area. Peanut producers could use the information generated from this on-farm trial to properly manage peanut diseases which have created peanut yield losses in the past. Research conducted to determine what influences the fungicide program producers select during the peanut growing season could lead to developing alternative educational materials for presenting on-farm trial data.

Trade and Whitiker conducted research to compare different adult learning styles in order to determine how young farmers preferred to learn. "Beginning farmers expressed a high level of agreement for experiential learning, production agriculture skill development, and hands-on problem-solving. Respondents also agreed that problem-solving involving mental activities (critical thinking) should be used and that a variety of teaching methods should be incorporated into their education" (Trade & Whitaker, 1998, Findings, para. 3). On-farm trials provide the producers with experiential and hands-on problem-solving learning styles which should persuade peanut producers to plant new cultivars. This study will determine if peanut producers prefer experiential learning experiences which will support the need to continue performing on-farm trials in the future.

Purpose and Objectives

The purpose of this study is to determine what influences peanut producers to plant the cultivars they select to plant each year and which peanut fungicide program they should choose. This will help county extension agents prepare for future programs and determine if the

information presented in the Hamilton County Peanut Production Meetings is beneficial to the peanut producers. Data from the county on-farm trials is used in these production meetings to persuade producers to incorporate new peanut cultivars into their production program and to establish fungicide spray programs which reduce fungicide resistance. It is hypothesized that local peanut producers rely on information from neighboring farmers when determining peanut cultivar selection at planting and determining what fungicide to use during the growing season. This study will provide the information needed to help extension agents create materials needed to present the peanut producers with information on cultivar and fungicide selection based on the on-farm trial data collected in Hamilton County. The purpose of this study will be accomplished through the achievement of the following objectives.

1. To determine how peanut producers select the peanut cultivar to be planted each year.
2. To determine how peanut producers select the peanut fungicides used each year.
3. To determine what teaching materials could persuade peanut producers to try new peanut cultivars.
4. To determine what teaching materials could persuade peanut producers to try peanut fungicide programs which consist of seven applications.
5. To determine what benefits peanut producers receive from attending peanut production meetings with data offered from the Hamilton County on-farm trials.

Definition of Terms

1. Crop rotation – The practice of growing a series of dissimilar crops in the same area in sequential seasons.
2. Foliar peanut disease – Disease which affects the peanuts canopy. Early and late leaf spot are the most destructive foliar disease in peanuts.

3. Fungicide – A biological compound or organism used to kill or inhibit fungi or fungal spores.
4. Grade - At a peanut shelling company buying station, peanuts are sampled and graded by the Federal-State Inspection Service to determine their value. The inspectors establish the meat content, size of pods, kernel size, moisture content, damaged kernels and foreign material. The results of the inspection determine the overall quality and value of each individual load of peanuts.
5. Harvest – Appropriate time to invert and pick peanuts.
6. Incorporate - To unite or work into something already existent, to blend or combine thoroughly.
7. Maturity – When the peanut has reached the optimum size and age for harvest.
8. Oleic Oil Chemistry - A primary functional benefit of high-oleic oils is an extended shelf life in food Applications, as these oils are less susceptible to lipid oxidation due to the reduction in the total number of double bonds compared to traditional oils.
9. On-Farm Trial – Trial used to present ideas for comparing the performance of varieties on a "farm scale" that will give peanut growers tools to accurately evaluate peanut varieties on their own farm.
10. Peanut Cultivar - plant variety produced by breeding: a variety of a cultivated plant that is developed by breeding and has a designated name.
11. Replication - is the repetition of an experimental condition so that the variability associated with the phenomenon can be estimated.
12. Resistance - A plant that has the ability to resist certain types of diseases while other varieties of the same plant are typically susceptible.

13. Soilborne Peanut Disease – Disease which affects the peanuts roots or stem below the canopy. White mold is the most destructive soilborne peanut disease.
14. Yield – Amount of peanuts produced per acre normally recorded in pounds or tons.

Limitations and Assumptions

In order to obtain more participation from peanut producers in completing evaluations at the end of peanut production meetings a Likert-type scale was designed. The main limitation of the Likert-type scale is that it is only able to measure whether the respondents are more or less favorable to a relevant subject. This scale fails to measure why the producers agree or disagree with the statements. The ease of answering this kind of survey may also lead to unreliable answers. The trustworthiness of the producers could be questioned due to the inability to determine whether the producers actually read the statements or not. This study assumes that each producer who fills out an evaluation at the end of production meetings will read the statements on the evaluation, reflect on the meeting, and answer each statement truthfully.

Significance of this Study

Determining the most appropriate teaching method in order to teach producers the latest trends in peanut production is important when trying to motivate producers to incorporate new peanut production methods into their production systems. A study conducted by Trade and Whitiker state that "beginning farmers expressed a high level of agreement for experiential learning, production agriculture skill development, and hands-on problem-solving" (Trade & Whitaker, 1998, Findings, para. 3). If this study suggests that producers learn most effectively through experiential learning styles it will provide the needed support to continue on-farm trial research.

Theoretical Framework

Each year peanut producers are faced with decisions which will have an impact on their total peanut yield and grade which will affect the net profit that producer will earn. The most important decisions that will affect the producer's net profit are peanut cultivar selection and what fungicide program to use. In Hamilton County, peanut on-farm trials are used to demonstrate how four cultivars perform and how four fungicide programs prevent peanut disease under similar conditions to the producer's production area. When examining what influences the producer's decision to plant a certain cultivar or spray a particular fungicide their learning style must be explored in order to determine what teaching method would be most appropriate to introduce new information which should be considered. Hansen states that "experiential learning theory defines learning as the process where knowledge is created through concrete experience and abstract conceptualization and transformed through reflective observation and active experimentation in a cyclical manner that continues until the conclusion of the project" (Hansen, 2012, p. 30).

Trade and Whitiker suggest that most agricultural producers prefer to learn through experiential learning methods. Producers prefer to adopt new production methods through experience in which extension personnel must adapt experiential teaching techniques in order to reach these producers and motivate them to try new production techniques. Paassen, Ridder, and Stroosnijder state that "first-order learning (experiential learning) is about the reduction of uncertainty. Uncertainty is reduced when someone acquires more details, necessary to arrive at a desired goal. This learning concerns observation, experimentation, and exchange of information to add elements, refine or extend one's knowledge about an issue-at-stake and how to solve it" (Paassen, Ridder, & Stroosnijder, 2011, p. 211). In order to reduce the uncertainty of new peanut

production practices the on-farm trials should be used by the producers to increase their knowledge of peanut cultivars and fungicides.

Ndoye's study suggests that "professional skills are usually updated through engagement in active learning by connecting prior experiences to new ones and also sharing information with others through reflection and hands-on activities" (Ndoye, 2003, p. 353). After performing a study on 126 farmers Ndoye supports the idea that farmers learn through experiential learning and suggest that most farmers should be given the opportunity to reflect on prior experiences when determining new production methods.

Kolb defines experiential learning as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience"(Kolb 1984, p. 41). In the model provided, Kolb identifies four stages of the learning process (Figure 1). This model provides the theoretical framework for the current study.

The four stages listed in the model are concrete experience (learning by feeling), reflective observation (learning by reflecting), abstract conceptualization (learning by thinking), and active experimentation (learning by doing). Concrete experience relates to the practical experience of the producer or knowledge which is gained through acquaintances. Reflective observation concentrates on what the experience means to the producer. If the producer is interested in the topic being discussed he will be motivated to concentrate on the topic being discussed. Abstract conceptualization is the stage where the producer will learn from the new experience. Active experimentation is the stage where the learner applies what has been learned to a real world situation. Effective learning is achieved when the learner progresses through the

entire cycle. The learner will have a concrete experience followed by reflection of the experience which leads to generalizations or conclusions of the experience which are then used to test the situation resulting in a new experience. The four learning styles which are based on the four-stage learning cycle are diverging, assimilating, converging, and accommodating. Kolb (1981) discusses the differences in the four learning styles. A diverging learner will prefer to watch rather than do. They perform better in situations that require the generation of ideas such as brainstorming. Assimilating learners require good clear explanations and would prefer to read or be lectured to. Someone with a converging learning style would prefer to find solutions to practical issues with the information they have learned and like to experiment with new ideas. The accommodating learner is hands-on and relies on intuition. This type of learner also relies on others for information and will react on instinct rather than logical analysis.

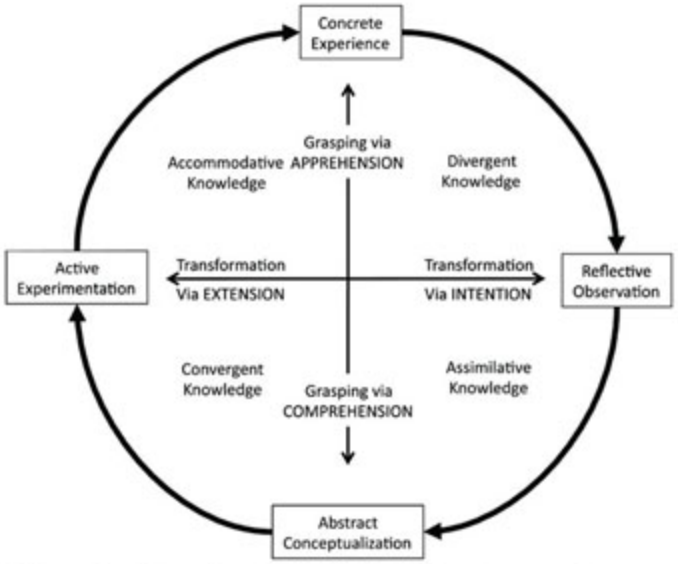


Figure 1. Model of Experiential Learning Process. Reprinted from *Experiential Learning: Experience as the Source of Learning and Development* (p. 42), by David A. Kolb, 1984, Englewood Cliffs, NJ: Prentice–Hall, Inc. Copyright 1984 by Prentice–Hall, Inc. Reprinted with permission.

Literature Review

Relevant and current research which has been conducted on experiential learning suggests that it is an important learning style to consider when teaching students and adults. In order to determine what teaching methods agriculture agents must learn to use they must first determine what learning style their clientele posses.

Research performed by Curtis and Mahon (2010) suggest that fieldwork projects enhance student learning and provide real world experiences which incorporate experiential learning. These researchers used a survey and a student interview in order to generate the data collected to show the repose of agriculture students in college which have been assigned a project incorporating experiential learning styles.

Roberts (2006) examined the experiential learning theory and described experiential learning as a cyclical process defined by theory. Roberts recommended that researchers should use this model in order to guide inquiry into practice.

Baker, Robinson, and Kolb (2012) consider experiential learning as a critical component to the comprehensive agricultural education model. They explain that experiential learning builds meta-cognitive skills and can be goal-oriented. These authors suggest that in order to successfully utilize the experiential learning theory the researcher must provide purposeful reflection, guide the learner toward abstraction, and provide an opportunity for the learners to experiment actively with their new found learning.

Methodology

Population and Sample

The population of this study consisted of the peanut producers in Hamilton, Suwannee, Madison, and Columbia counties in Florida and Lowndes and Echols counties in Georgia. Suwannee River Peanut is a buying point for McClesky Mills and is located in Hamilton County. An invitation to attend the peanut production meetings was sent to each of the producers who sell peanuts through this buying point. This generated an interest in the peanut meetings from the surrounding counties and assured that all producers who grow peanuts in the area were invited. The sample of the population evaluated consisted of the peanut producers in attendance at the Hamilton County Peanut Production Meetings which account for ninety percent of the peanut producers in the area. These producers were evaluated at the conclusion of the Hamilton County Peanut Production Meetings held on February 12, 2013 and September 10, 2013.

Research Design

This was a quantitative research design in which evaluations where used to determine what information on cultivar selection and fungicide programs was obtained and what teaching method was preferred for future meetings. Quantitative research allows the researcher to use an evaluation in order to collect data that can be used to justify future meetings to stakeholders. At the conclusion of the peanut commodity meetings the peanut producers were presented an evaluation and asked to return it on their way out of the meeting. During these meetings, pesticide continuing education units were also available at the end of the meeting and were

distributed once the evaluations had been completed and turned in. This motivated most of the producers to complete the evaluation in a timely manner.

Knowledge and satisfaction questions were answered by the producers with the use of a Likert-type scale in which 1 represented strongly disagree and 5 represented strongly agree. Ary, Jacobs, and Sorensen state that "a Likert scale assesses attitudes toward a topic by presenting a set of statements about the topic and ask respondents to indicate for each whether they strongly agree, agree, are undecided, disagree, or strongly disagree" (Ary, Jacobs, & Sorensen, 2010, p. 209). This scale allowed the evaluator to score each producer and determine whether the producer had a negative or positive attitude toward the peanut meetings and experiential learning. This scale was also used to determine the overall efficiency of the peanut production meeting and was used to compare the traditional meeting held in February with the on-farm trial meeting held in September which consisted of differing teaching styles to determine which meeting was the most beneficial and what teaching style was preferred.

A qualitative approach to this study could also be considered as an alternative method used for collecting research for this study. The researcher visited peanut producers while they were planting peanuts and used an interview style evaluation in order to determine why they selected the peanut cultivar they were planting. In order to determine how the producers prefer to learn and what qualities of the peanut meetings they prefer, the interviewer also questioned their participation in the peanut production meetings offered through the extension office. This type of evaluation is more personal and the results would be more trustworthy when determining how the producers prefer to learn. However, this method is more expensive and time consuming when considering there are approximately sixty producers who attended the meetings and are from five counties. The sample for this approach was smaller in which only some of the

producers in Hamilton County were interviewed. This alternative method limits the number of producers interviewed which does not represent the population of peanut producers as well as the quantitative research method did.

Data Collection:

The data collection process for this study began when variables of interest were identified and a population and sample were defined. One variable of this study is concerned with identifying how agricultural producers learn. Each year producers determine what peanut cultivar to include in their production system. On-farm cultivar trials are used to conduct research in order to provide producers with a list of recently released cultivars to aid them in selecting one which will be beneficial to their production techniques. In order to present these data to producers in a way that will be accepted, an evaluation was designed to determine how these producers would prefer to receive this information. In order to create an evaluation in which numerical data can be used to identify the learning styles of peanut producers, a Likert-type survey was used. The information collected from this evaluation will be used by agriculture agents to design production meetings which will present new material to producers that will be accepted and incorporated into their production area.

Data Analysis

This scale allowed the researcher to determine each of the producers overall attitude and allowed the researcher the ability to compare the statements on the evaluation in order to determine the overall satisfaction level of each individual statement on the evaluation. Ary, Jacobs, and Sorensen state that "the researcher does an item analysis to identify the best functioning items. The item analysis typically yields three statistics for each item: (1) an item

discrimination index, (2) the percentage of respondents marking each choice to each item, and (3) the item mean and standard deviation" (Ary, Jacobs, & Sorensen, 2010, p. 211). An item analysis was conducted on each of the items listed in the sample evaluation on the appendix page. Descriptive statistics were used to determine the measures of central tendency which will include the mean, median, and mode.

Findings

At the conclusion of the annual Hamilton County Peanut Production Meeting held on February 12, 2013 a Likert scale evaluation was presented to participants. Listed below in Table 1. are the topics which were asked in the evaluation. The participants were able to answer 1 for strongly disagree through 5 for strongly agree for each statement listed. The results are listed below along with the mean, mode, and median for each evaluation topic. Each of these topics were marked as somewhat agree and strongly agree by all of the participants indicating that the meeting was successful. In order to determine which topic rated the lowest in this evaluation one can select the topic with the lowest mean score which is 4.58. This topic included foliar and soil-born diseases presented by Dr. Nicholas Dufault. This indicates that this presentation could be improved in either content, presentation technique, or both.

Table 1.
Meeting Evaluation Results February 12, 2013

55 Participants	1	2	3	4	5	Mean	Mode	Median
1. I increased my knowledge of peanut production methods - seeding rates, effects of tractor ground speed at planting, determining whether or not to replant from the presentation by Dr. Scott Tubbs, Cropping Systems Agronomist, University of Georgia?	0	0	0	20	35	4.63	5	5
2. I increased my knowledge in the area of Foliar and Soil-Born peanut diseases after the presentation from Dr. Nicholas Default, UF Plant Pathology?	0	0	0	23	32	4.58	5	5
3. I found the on-farm trial information presented by Keith Wynn, UF Extension Agent to be beneficial?	0	0	0	15	40	4.73	5	5
4. I feel that the topics discussed were relevant to my needs as a peanut producer.	0	0	0	13	42	4.76	5	5
5. I found the meeting and/or handouts useful to me.	0	0	0	0	55	5	5	5

	Male	Female	White	Black	Hispanic
Gender	51	4			
Ethnicity			49	2	4

At the conclusion of the annual Hamilton County Peanut Cultivar and Fungicide On-Farm Trial Meeting held on September 10, 2013 a Likert scale evaluation was presented to participants. Listed below in Table 2. are the topics which were asked in the evaluation. The participants were able to answer 1 for strongly disagree through 5 for strongly agree for each statement listed. The results are listed below along with the mean, mode, and median for each evaluation topic. Each of these topics were marked as somewhat agree and strongly agree by all of the participants indicating that the meeting was successful. In order to determine which topic rated the lowest in this evaluation one can select the lowest mean score which is 4.89. This topic included peanut fungicide use presented by Dr. Nicholas Dufault. This indicates that the presentation could be improved in either content, presentation technique, or both.

Table 2.
Meeting Evaluation Results September 10, 2013

44 Participants	1	2	3	4	5	Mean	Mode	Median
1. I increased my knowledge in peanut cultivar selection.	0	0	0	4	40	4.91	5	5
2. I increased my knowledge in peanut fungicides.	0	0	0	5	39	4.89	5	5
3. I intend to apply the information learned in order to improve my peanut production program.	0	0	0	2	42	4.95	5	5
4. I increased my knowledge in the area of foliar and soil born peanut diseases.	0	0	0	2	42	4.95	5	5
5. Topics discussed were relevant to my needs as a peanut producer.	0	0	0	0	44	5	5	5
6. The presenters were knowledgeable in the subject matter.	0	0	0	4	40	4.91	5	5
7. The meeting and/or handouts will be useful for future reference.	0	0	0	0	44	5	5	5

	Male	Female	White	Black	Hispanic
Gender	41	3			
Ethnicity			42	0	2

Conclusion

This study provided agricultural extension agents with information regarding agricultural producers learning styles. The data collected and analyzed explains what type of production meeting producers prefer and how programs should be presented to benefit their needs. This evaluation allows extension agents the material needed to justify using experiential teaching methods and discusses the importance of using on-farm trials to persuade producers to try new agricultural production techniques.

At the conclusion of each meeting an evaluation was presented to producers which were analyzed to determine the importance of each meeting. Both meetings received good scores on the evaluations leading one to believe that both were successful. Once the meeting scores were compared it was interesting to see that the mean score was higher on each of the questions

answered from the on-farm trial evaluation. The meeting held in February was a traditional meeting which used power points to present material to peanut producers in a conference room which limited the producer's participation. The second meeting held in September focused on an experiential teaching style. The material in the provided presentations for this meeting were covered but were not presented in a power point. The presenters provided this information in the field and allowed producers to discuss the material openly while viewing actual samples of disease problems and samples of different peanut cultivars. This project supports this agent's hypothesis that producers prefer to learn through experiential learning styles.

References

Ary, D., Jacobs L. C., & Sorensen, (2010). *Introduction to Research in Education 8th Edition* Belmont, California: Cengage Learning.

Baker, M. A., Robinson, J. S., & Kolb, D. A. (2012). Aligning Kolb's experiential learning theory with a comprehensive agricultural education model. *Journal of Agricultural Education, 54*(4), 1. Retrieved from http://go.galegroup.com.lp.hscl.ufl.edu/ps/i.do?action=interpret&id=GALE%7CA324980515&v=2.1&u=gain40375&it=r&p=AONE&sw=w&authCount=1

Beasley, J. P. (2013). *2013 Peanut Production Update.* Retrieved from http://www.ugapeanuts.com/

Curtis, K., & Mahon, J. (2010). Using extension fieldwork to incorporate experiential learning into University coursework. *Journal of Extension, 48*(2)

Hansen, G. (2012). When students design learning landscapes: designing for experiential learning through experiential learning. *NCTA Journal, 56*(4), 30. Retrieved from http://www.nactateachers.org/vol-56-num-4-dec-2012.html

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development.* New Jersey: Prentice-Hall.

Kolb, D. A. (1981). *Learning Styles and Disciplinary Differences.* San Francisco, California: Jossey-Bass Inc.

Mueller, D. S., Wise, K. A., Dufault, N. S., Bradley, C. A., Chilvers, M. I. (2013). *Fungicides for Field Crops.* St. Paul, Minnesota: The American Phtopathological Society.

Ndoye, A. (2003). Experiential Learning, self-beliefs and adult performance in Senegal. *International Journal of Lifelong Education, 22*(4), 353-366. Retrieved from http://www.tandfonline.com.lp.hscl.ufl.edu/doi/pdf/10.1080/02601370304831

Paassen, A., Ridder, N., & Stroosnijder, L. (2011). Role of an explorative model for learning about sustainable agricultural development in Burkina Faso. *International Journal of Agricultural Sustainability, 9*(2), 310-321. Retrieved from http://search.proquest.com.lp.hscl.ufl.edu/docview/885075163/fulltextPDF?accountid=10920

Roberts, T. G. (2006). A philosophical examination of experiential learning theory for agricultural educators. *Journal of Agricultural Education, 47*(1)

Tillman, B. L. (2013, February). *Peanut varieties of 2013 on beyond.* Power point presented at the meeting of University of Florida Agronomic Extension Agent Training, Quincy, FL.

Tillman, B. L., Gomillion, M., McKinney, J., Person, G., Thomas, B. (2010) *Peanut variety performance in Florida, 2007 – 2010.* Retrieved from University of Florida EDIS website: http://escambia.ifas.ufl.edu/agriculture/PeanutVarietyPerformanceInFla-2007-2010.pdf

Trede, L. D., & Whitaker, S. (1998). Beginning farmer education in Iowa: Implications to extension. *Journal of Extension, 35*(5). Retrieved from http://www.joe.org/joe/1998october/a3.php

Appendix A

Meeting Materials

2013 Hamilton County Peanut Production Meeting, February 12, 2013.

Meeting Objectives

Objective 1: Compare single row and twine row planting methods for production advantages and disadvantages.

Objective 2: Identify soil born peanut diseases and preventive methods.

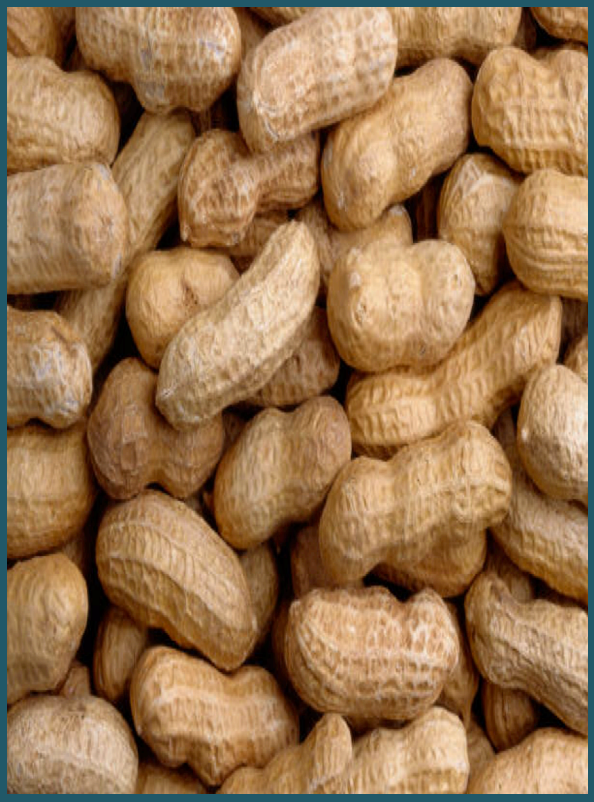
Objective 3: Identify foliar peanut diseases and preventative methods.

Objective 4: Create a spray schedule which will avoid fungicide resistance.

Objective 5: Explain the importance tractor speed has on planting peanuts.

Objective 6: Identify high yielding cultivars based on data from peanut on-farm trials.

Objective 7: Identify successful fungicide programs based on data from peanut on-farm trials.



WELCOME

to the

Hamilton County Peanut

Production Meeting

Tuesday, February 12, 2013

6:00 PM

Program of Activities

6:00	Welcome and Introduction – Keith W. Wynn, Agriculture Agent, Hamilton County Extension, UF/IFAS
6:05	Meal -- Courtesy of Suwannee River Peanut Mike & Jill Adams, Larry Cunningham McCleskey Mills
6:30	Farm Programs Available for 2013 Don Burnam, Farm Service Agency CED
6:40	Peanut Production Methods – Seeding Rates, Effects of Tractor Ground Speed at Planting, Determining whether or not to replant. Dr. Scott Tubbs, Cropping Systems Agronomist, University of Georgia
7:25	Managing Foliar and Soil-Borne Peanut Diseases Dr. Nicholas Dufault, Plant Pathology, University of Florida
8:10	Hamilton County Peanut On-Farm Trial Update Keith W. Wynn, Agriculture Agent, Hamilton County Extension, UF-IFAS
8:30	Comments – Joe West, Larry Cunningham, and/or Chris Cunningham – McCleskey Mills Mike Adams and/or Harrell Tyree – Suwannee River Peanut
8:40	Handbook Handout and Adjournment of Meeting

Two Private/Ag Row CEU will be given towards your pesticide liscense.

THE UNIVERSITY OF GEORGIA
COLLEGE OF AGRICULTURAL & ENVIRONMENTAL SCIENCES

Planting Decisions and Strategies for Peanut

R. Scott Tubbs
Cropping Systems Agronomist
Tifton, GA

Hamilton County, FL – Peanut Production Meeting
Feb. 12, 2013

Row Pattern

- Twin rows have reduced intra-row plant competition since spaced further apart
- Seed plates rotate at slower speed than singles for more accuracy / less skips
- Greater stand establishment rate than singles:
  - 2011 data (2 locations)
    - Twins = 85%
    - Singles = 73%

Seeding Rates

Georgia-06G (650 seed / lb)

Seed Rate (Seed / Ft)	Price $ / Lb	Plant Cost $ / Ac
Five	0.75	$84
(112 lb / ac)	0.90	$101
Six	0.75	$101
(134 lb / ac)	0.90	$121
Seven	0.75	$117
(156 lb / ac)	0.90	$140

Introduction

- Seed cost is one of the highest input costs growers face each year
- Maximized profit potential is a result of maximizing yield / grade with minimized input costs
- Adequate final plant stand is the goal
  - But what is considered "adequate"?

Georgia-06G (650 seed / lb)

Price $ / Lb	Diff. per 1 SPF	$355 / ton	$500 / ton
0.75	$16.50	93 #	66 #
0.90	$19.80	112 #	79 #

Pounds of peanut needed to pay for additional seed

Materials and Methods (2012)

Ponder Farm – Tifton; Attapulgus REC

- Cultivars:
  - Florida-EP™ '113'
  - FloRun™ '107'
  - GA Greener
  - GA-06G
  - GA-07W
  - GA-09B
  - GA-10T
- Seeding Rates:
  - 5.2 SPF
  - 6.2 SPF
  - 7.1 SPF
  - 8.3 SPF

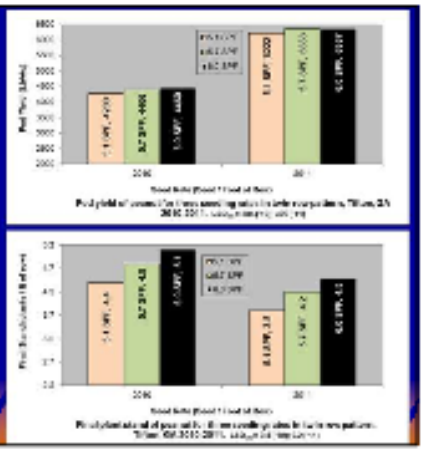
Row Pattern

- Single Row has a broader range of optimum plant stand, and can often be achieved with seeding rates of 5.0 seed / ft
- Twin Row requires higher plant stands to maximize yield and realize benefits of reduced competition – seeding rates up to 7.0 seed / ft often profitable.

Yield

Tifton 2010-11

Stand



Summary

- Reducing seeding rate in Singles has greatest capacity for savings
- Difficult to get stand above 4 plants / foot in Singles regardless of seed rate
- Reduction in stand still occurs, but less pronounced and doesn't impact yield

Plant Stand vs. Yield

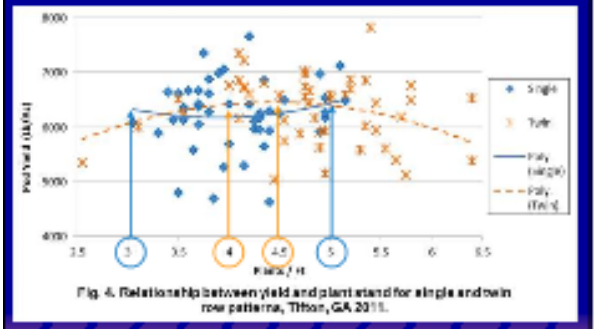


Fig. 4. Relationship between yield and plant stand for single and twin row patterns, Tifton, GA 2011.

Summary

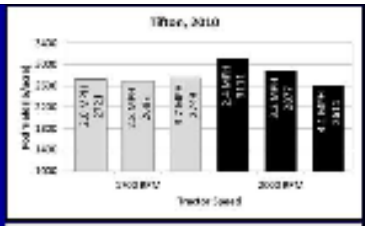
- Twin rows have historically outperformed Singles
- Reduced seeding rate in Twins has potential to reduce yields
- Twin rows already have reduced intra-row plant competition since spaced further apart to begin with

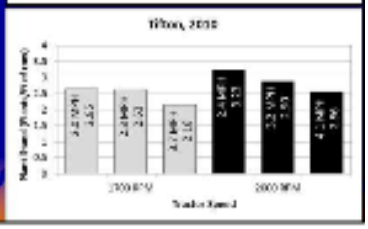
Tractor Speed at Planting

Yield

Tifton 2010

Stand





Introduction

- Traveling too fast at planting can lead to skips in stand.
- Many precision vacuum planters have speed dependent on pressure (RPM)
- Is speed or pressure (or combination) causing skips in stand?

Summary

- Tractor speed does influence accuracy of planter and resulting number of skips.
- Plant stand can lead to yield differences.
- The faster the speed at planting, the lower the plant stand at a given seed rate setting.
- Reduce speed by tractor gear, not by RPM (on PTO dependent planters)

Materials and Methods

Tractor Gears:

Low 2
Low 3
Low 4

RPM:Seed Plates:

1700 4060
2000 4860

Resulting Speeds:

- L2, 1700 = 2.0 mph
- L2, 2000 = 2.4 mph
- L3, 1700 = 2.8 mph
- L3, 2000 = 3.2 mph
- L4, 1700 = 3.7 mph
- L4, 2000 = 4.1 mph

Summary

Return

- Seven of ten data sets (site x year x RPM setting) resulted in an economic advantage when the lowest speed was used compared to the highest speed.
- Extra 7 mins / acre (4-row equip.) to drop from 4.1 to 2.4 mph ($1.20 more), ÷ 10 lb peanuts pays for time
- When possible, slow down – it allows the equipment to perform optimally and will usually pay off.

UF UNIVERSITY of FLORIDA
IFAS Extension

Management of soil borne and foliar peanut diseases.

Nicholas S. Dufault
Extension Specialist
Row Crops & Vegetables
Plant Pathology Department/IFAS
University of Florida

There were many peanut diseases present in Florida during the 2012 season.

There was a good amount of rainfall in most peanut production areas.

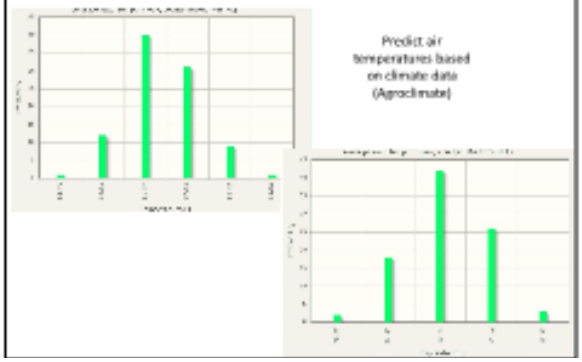
- High moisture conditions
- Cooler average temperatures

Environment was key to development of late leaf spot and CBR in some fields.

Climate outlook (Agroclimate)

- ENSO phase is neutral
  - Cold and warm winter spells
  - Near normal rainfall
  - In general too variable to predict

Watch the May and June soil temps: 85 to 92°F creates good Stem rot environments.



Soil borne peanut diseases to watch for in 2013.

Cylindrocladium Black Rot (CBR)

Cylindrocladium crotalariae

- CBR was observed in 2013 in multiple fields
- Moisture from tropical storms important
- **Sustained cold < 40 F reduces survival**

2013 Live Oak FAWN winter data

Temps currently are not cold enough to limit CBR inoculum.

If you had CBR, an early season application of Proline may be useful.

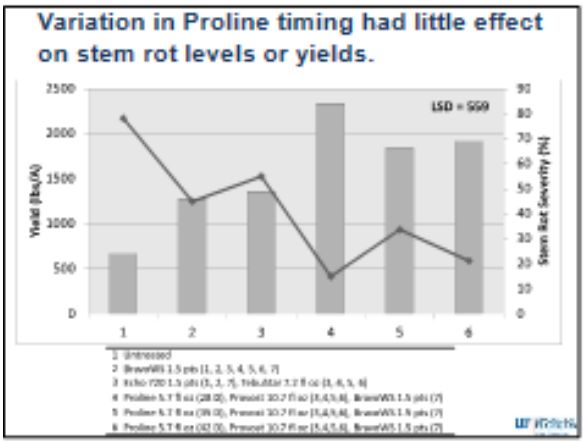
- Neocosmospora is a CBR look-a-like
- Common in Panhandle
- Not considered yield reducing.

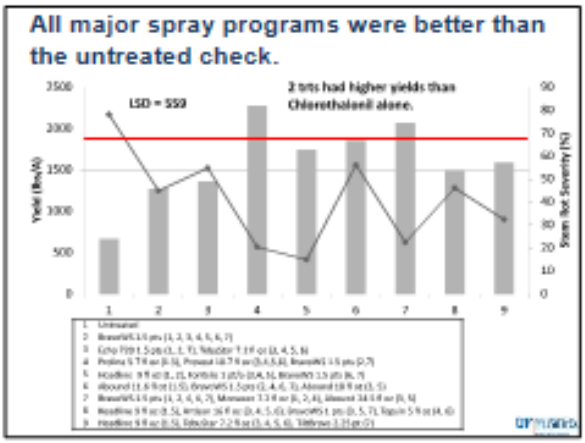
Stem rot trials at PSREU Citra, FL

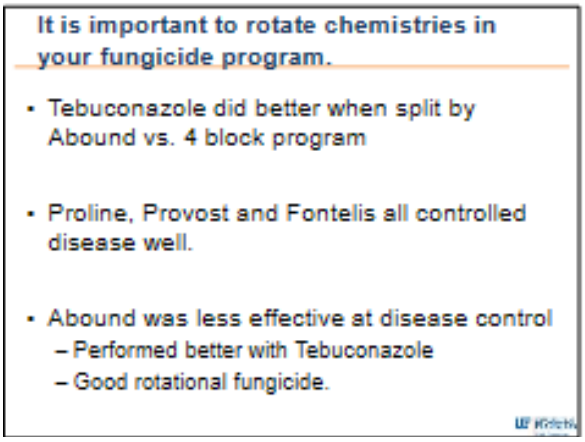
- 2 yrs of peanuts, 2011 inoculated
- Variety: GA-06G, low stand (2 plants/ft)
- High levels of Late Leaf Spot
  - Developed in late August
  - Low levels of rust and ELS
  - Higher incidence of TSWV (10 - 20%)

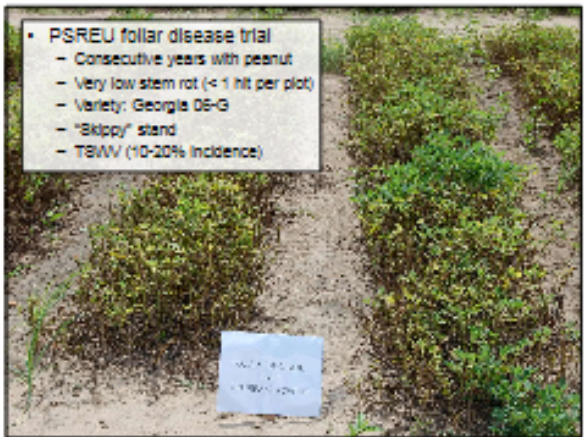

Echo720 & TebuStar (4 Block)


Proline (1.5)
Bravo WS (2,7)
Provost (3,4,5,6)

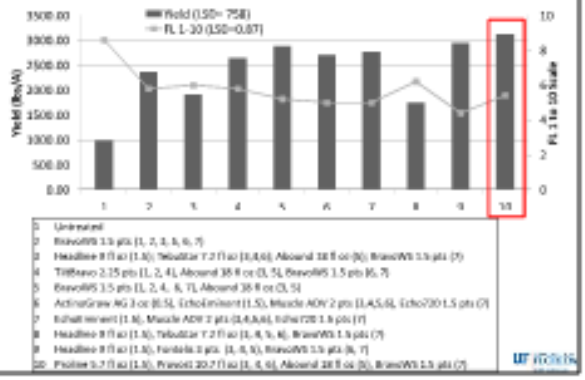

Variation in Proline timing had little effect on stem rot levels or yields.
LSD = 559
Yield (lbs/A)
Stem Rot Severity (%)


All major spray programs were better than the untreated check.
LSD = 559
2 trts had higher yields than Chlorothalonil alone.
Yield (lbs/A)
Stem Rot Severity (%)


It is important to rotate chemistries in your fungicide program.
• Tebuconazole did better when split by Abound vs. 4 block program
• Proline, Provost and Fontelis all controlled disease well.
• Abound was less effective at disease control
– Performed better with Tebuconazole
– Good rotational fungicide.


• PSREU foliar disease trial
– Consecutive years with peanut
– Very low stem rot (< 1 hit per plot)
– Variety: Georgia 06-G
– "Skippy" stand
– TSWV (10-20% incidence)

All treatments better than the untreated check.

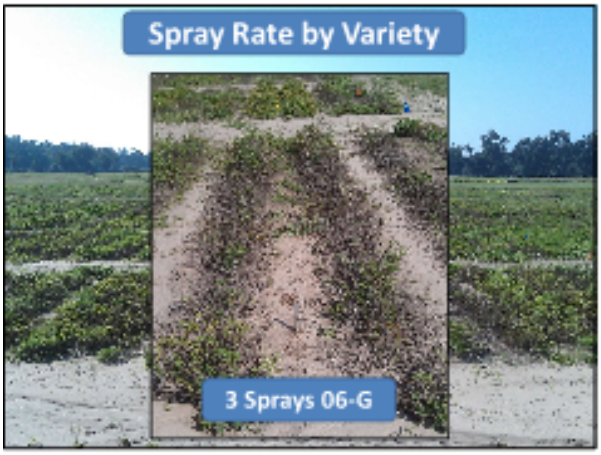


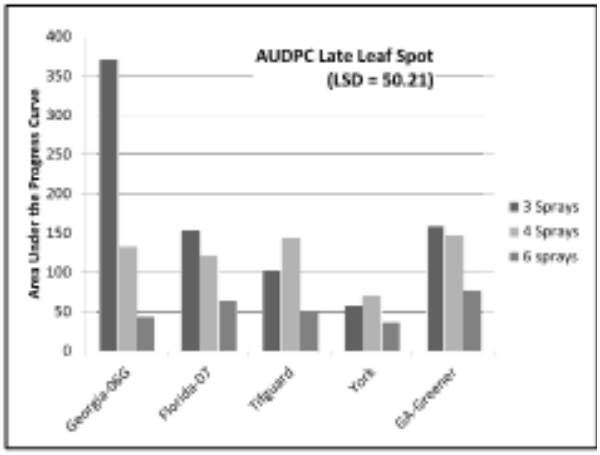
Rotating and mixing chemistries are critical steps to good late leaf spot control.

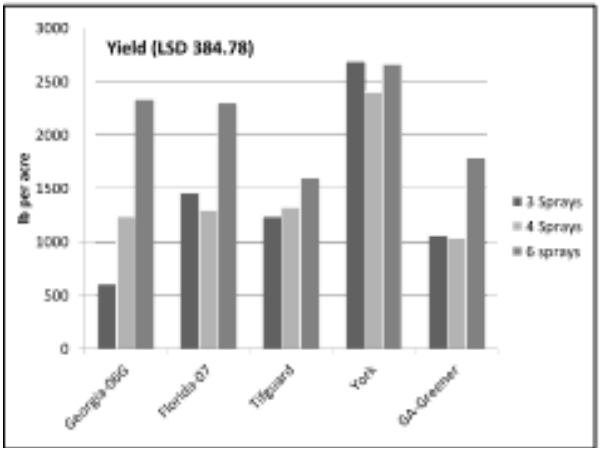
- Avoid a 4 block of Tebuconazole
- No indications Tilt Bravo provides better control
- Fontelis, Provost and Abound provide good control.

Trade Name	Common Name	FRAC
Proline	Prothioconazole	3
Bravo/Echo	Chlorothalonil	M5
Abound	Azoxystrobin	11
Headline	Pyraclostrobin	11
Tebuconazole	—	3
Artisan	Fluxapyroxad+Pyraclostrobin	7+11
Convoy	Flutriafol	3
Provost	Prothioconazole+Tebuconazole	3
Tiptur	Thiophanate-methyl	1
ActiveGro	Streptomyces lydicus	NA
Omnivi	Tebuconazole	3

Spray Rate by Variety







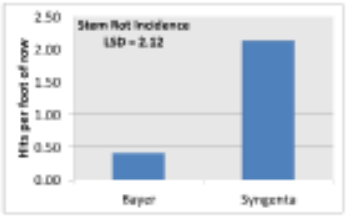
Some varieties are better than others for late leaf spot resistance.

PEANUT Rx

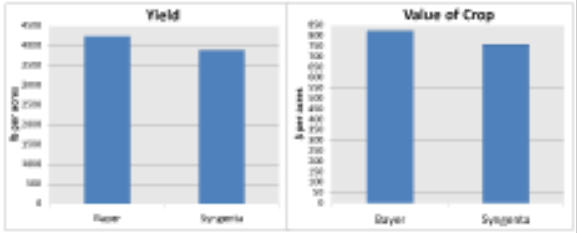
Variety	TSWV	Leaf Spot	White Mold
Georgia-06G	10	20	20
Georgia-07W	10	20	10
Georgia Greener	10	20	20
Tifguard	10	15	15
Florida-07	10	20	15

Alachua Co. disease data

Trt	DAP 47 5-30-12	DAP 61 6-13-12	DAP 77 6-29-12	DAP 87 7-11-12	DAP 105 7-29-12	DAP 118 8-7-12	DAP 133 8-22-12
Bayer	Proline (5.7 oz, Banded)		Provost (10.7 oz)	Provost (10.7 oz)	Convoy (1.5 oz) + Chlorothalonil (1.5 pt)	Provost (10.7 oz)	Chlorothalonil (1.5 pt)
Syngenta	Abound (11.5 oz, Banded) + Bravo WS @ 1.5 pt/A	Bravo WS 1.5pt/A	Abound (18 oz)	Bravo WS (1.5 pt)	Abound (18 oz)	Bravo WS (1.5)	Bravo WS (1.5) Monsoon (7.2 fl oz)



Alachua Co. yield results



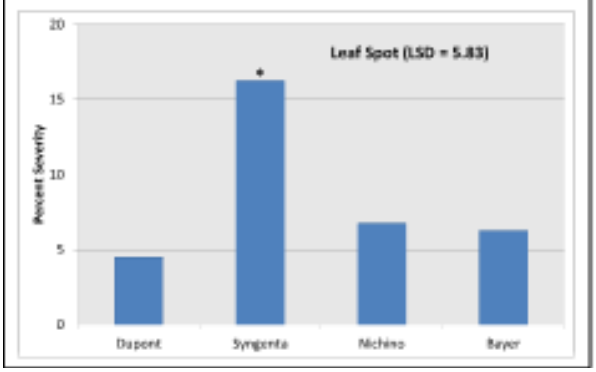
Difference of ~367 lb per acre

Difference of ~$62 per acre

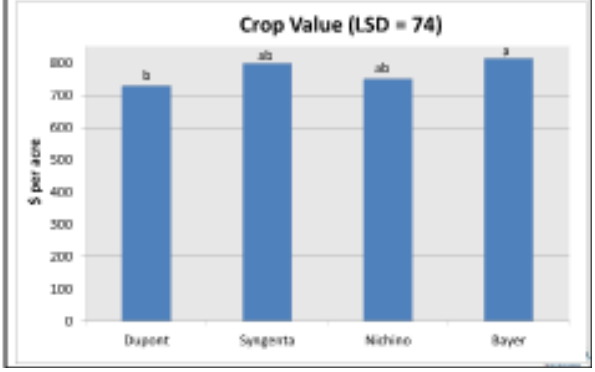
Hamilton Co. spray schedule

	35 DAP 19-Jun-12	49 DAP 2-Jul-12	63 DAP 17-Jul-12	78 DAP 1-Aug-12	93 DAP 16-Aug-12	104 DAP 27-Aug-12	118 DAP 10-Sep-12
Bayer	Proline (5.7 fl oz, Banded)		Provost (10.7 fl oz/a)	Provost (10.7 fl oz/a)	Provost (10.7 fl oz/a)	Provost (10.7 fl oz/a)	Chlorothalonil (24 fl oz/a)
Syngenta	Abound (11.5 fl oz, Banded) + Bravo WS (14 fl oz/a)		Abound (18 fl oz/a)	Tebuconazole (7.2 oz)	Abound (18 fl oz/a)	Bravo WS (24 fl oz/a)	Bravo WS (24 fl oz/a)
Nichino	Headline (9 fl oz/a) 47 DAP (July 2, 2012)		Artisan (16 fl oz/a) Chlorothalonil (16 fl oz/a)	Artisan (16 fl oz/a) Chlorothalonil (16 fl oz/a)	Artisan (16 fl oz/a) Chlorothalonil (16 fl oz/a)	Artisan (16 fl oz/a) Chlorothalonil (16 fl oz/a)	Chlorothalonil (24 fl oz/a)
Dupont	Headline (9 fl oz/a) 47 DAP (July 2, 2012)		Fontelis (16 fl oz/a)	Fontelis (16 fl oz/a)	Fontelis (16 fl oz/a)	Chlorothalonil (24 fl oz/a)	Chlorothalonil (24 fl oz/a)

Hamilton Co. disease data



Hamilton Co. yield results

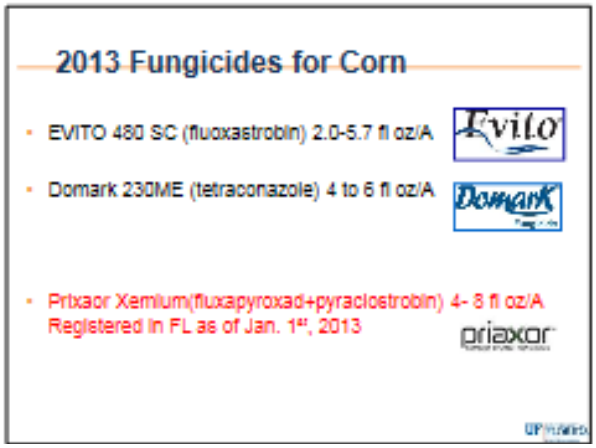



Questions?


Southern rust can be observed on the leaf, ear and stalk of corn.
Pustules on upper leaf surface


Southern Corn Leaf Blight and Gray Leaf Spot can be serious problems.
Southern Corn Leaf Blight
Gray Leaf Spot
Similar symptoms and it can often depend on hybrid, however both can cause significant yield losses.


2013 Fungicides for Corn
Tilt (propiconazole): 2-4 fl oz/A
Tebuzol (tebuconazole): 6 fl oz
Stratego (Tilt + trifloxystrobin): 7.0-12.0 fl oz/A
Stratego YLD: (prothioconzole + trifloxystrobin)
Quilt Xcel: Quadris (azoxystrobin)+ Tilt (10.5-14.0 fl oz/A)
Headline (pyraclostrobin): 6.0 fl oz
Headline AMP: (+ metconazole) 10 fl oz/A


2013 Fungicides for Corn
EVITO 480 SC (fluoxastrobin) 2.0-5.7 fl oz/A
Domark 230ME (tetraconazole) 4 to 6 fl oz/A
Priaxor Xemium(fluxapyroxad+pyraclostrobin) 4- 8 fl oz/A
Registered in FL as of Jan. 1st, 2013

Fungicides will usually control both rusts and leaf blights. (check labels)

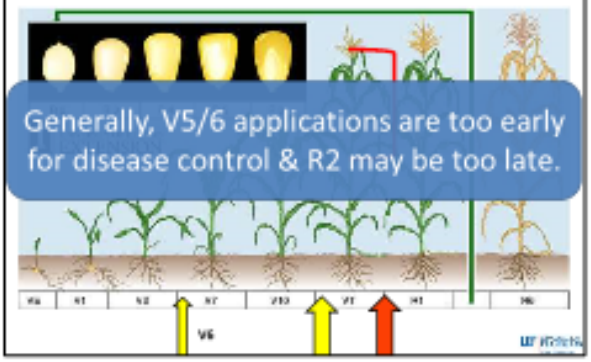
Fungicide	Diseases Controlled	FRAC
Headline	Northern & Southern Corn Leaf Blight; Common & Southern Rust; Gray Leaf Spot	11
Quadris	Northern & Southern Leaf Blight; Common rust; Gray Leaf Spot	11
Quilt	Northern & Southern Corn Leaf Blight; Common & Southern Rust; Gray Leaf Spot	3/11
Stratego	Northern & Southern Leaf Blight; Common rust; Gray Leaf Spot	3/11
Priaxor	**Northern & Southern Corn Leaf Blight; Common & Southern Rust; Gray Leaf Spot**	7/11
Tilt	Northern & Southern Corn Leaf Blight; Common & Southern Rust; Gray Leaf Spot	3

Remember to rotate and avoid fungicide resistance

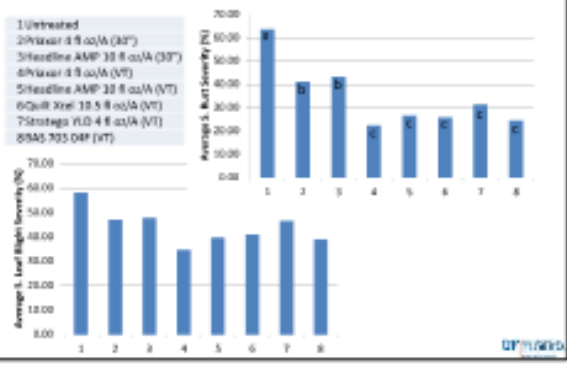
Fungicide recommendations for corn depends on the situation.

- **Question**: "Do I need a fungicide on my crop?"
  - **Robert Kemerait, UGA**: "MAYBE, and DON'T miss the opportunity if you do…."
  - Fungicides are beneficial if disease is present (i.e. irrigated corn)
- Fungicides on average will save **5 bushels** or more when disease is present.

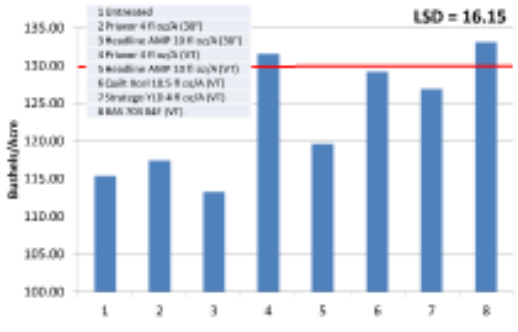
Timing of application is critical to effective or profitable disease control.



PSREU 2012 fall corn trial.



VT seasons sprays did provide a yield 'bump', but southern rust was present.



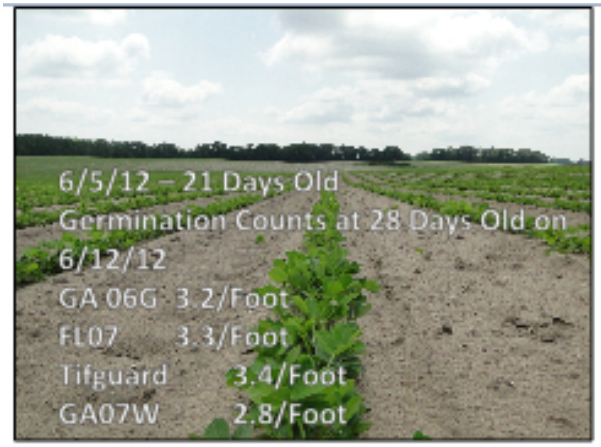

2012 Peanut Variety and Fungicide Trial
Keith W. Wynn – Hamilton County Extension


Planting Date: May 15, 2012


Georgia 06G
Florida 07
Tifguard
Georgia 07W


Four Replications Each
.6534 Acres Per Replication
2.6 Total Acres Per Variety
10.6 Total Acres Total


5/23/12 Germination After Eight Days


6/5/12 – 21 Days Old
Germination Counts at 28 Days Old on 6/12/12
GA 06G 3.2/Foot
FL07 3.3/Foot
Tifguard 3.4/Foot
GA07W 2.8/Foot


• Fungicide Trial
• Started on 6/19/12 Thirty Two Days After Planting
• Four Replications Per Fungicide Treatment
• 24 Rows In Each Replication
• Ten Acres per Replication
• 40 Acres Total Test


Slope
DAYS UNTIL DIGGING 31 28 24 21 17 14 10 7 3


Slope
DAYS UNTIL DIGGING 31 28 24 21 17 14 10 7 3


Slope
DAYS UNTIL DIGGING 31 28 24 21 17 14 10 7 3


122 Days Old
Dig In 7 Days
Today = Sept 10
Dig = 7 Days
Slope
Profit Point
Loss
DAYS UNTIL DIGGING 31 28 24 21 17 14 10 7 3


Syngenta
Nichino


Dupont


Bayer
Syngenta


Inverted On 9/26/12
135 Days Old

Hamilton County Fungicide Trial

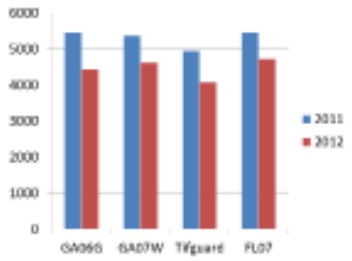
Herbicide	Yield	Price per Ton	Value per Acre
Dupont	3983	$367.31	$727.82
Syngenta	4147	$383.63	$795.46
Nichino	4052	$369.39	$748.38
Bayer	4335	$373.91	$810.45

Value per acre is based on the Peanut Price Schedule (Loan Value)

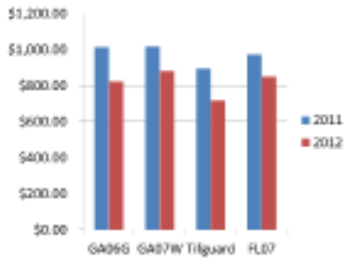
Hamilton County Variety Trial

Variety	Yield	Price per Ton	Value per Acre
GA06G	4429	$372.18	$824.86
FL07	4728	$359.31	$849.40
Tifguard	4078	$358.27	$718.48
GA07W	4612	$382.58	$882.23

Value per acre is based on the Peanut Price Schedule (Loan Value)



Yield Comparison Between 2011 and 2012



Price Per Acre

Appendix B

2013 Hamilton County Peanut Production Meeting
Survey/Evaluation February 12, 2013
Hamilton County Extension Office

PLEASE RATE THE FOLLOWING:	Strongly Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Strongly Agree
1. I increased my knowledge of peanut production methods - seeding rates, effects of tractor ground speed at planting, determining whether or not to replant from the presentation by Dr. Scott Tubbs, Cropping Systems Agronomist, University of Georgia?	1	2	3	4	5
2. I increased my knowledge in the area of Foliar and Soil-Born peanut diseases after the presentation from Dr. Nicholas Default, UF Plant Pathology?	1	2	3	4	5
3. I found the on-farm trial information presented by Keith Wynn, UF Extension Agent to be beneficial?	1	2	3	4	5
4. I feel that the topics discussed were relevant to my needs as a peanut producer.	1	2	3	4	5
5. I found the meeting and/or handouts useful to me.	1	2	3	4	5
PLEASE ANSWER THE FOLLOWING:					
6. What topics do you suggest for future meetings?					
7. Any additional comments:					

Thanks

Appendix C

Meeting Materials

2013 Hamilton County Peanut Cultivar and Fungicide On-Farm Trail Meeting, September 10, 2013.

Meeting Objectives

Objective 1: Identify soil born peanut diseases and preventive methods.

Objective 2: Identify foliar peanut diseases and preventative methods.

Objective 3: Create a spray schedule which will avoid fungicide resistance.

Objective 4: Identify the peanut cultivars which are available for purchase from local peanut seed retailers.

Objective 5: Identify peanut cultivars which exhibit high levels of oleic fatty acid chemistry.

Objective 6: Identify high yielding cultivars based on data from peanut on-farm trials.

Objective 7: Identify successful fungicide programs based on data from peanut on-farm trials.

Hamilton County Peanut Cultivar & Fungicide On–Farm Trial Meeting

UF/IFAS Extension Hamilton County

Tuesday, September 10, 2013

6:00 P.M.

Sponsor: Coggins Farm Supply

6:00 P.M. Welcome and Introductions – Keith W. Wynn, Agriculture Agent, UF/IFAS Extension Hamilton County

6:05 P.M. Meal – (UF/IFAS Extension Hamilton County, 1143 US Hwy 41 NW, Jasper, FL)
Sponsored by Coggins Farm Supply

6:30 P.M. Sponsor Comments – Gerald Coggins, Coggins Farm Supply

6:45 P.M. Peanut Disease Identification and Control (Fungicide On-Farm Trial Field Tour)
Dr. Nicholas Dufault, University of Florida, Plant Pathology
Keith W. Wynn, Agriculture Agent

7:30 P.M. New Peanut Cultivars, Insect Management, and Disease Resistance (Cultivars On-Farm Trial Field Tour)
Dr. Barry Tillman, University of Florida, Peanut Breeding and Genetics
Keith W. Wynn, Agriculture Agent

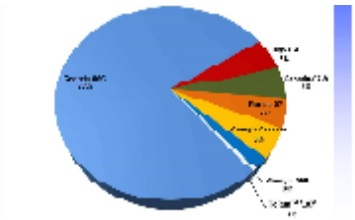
8:15 P.M. Question/Answer Session

Call the UF/IFAS Extension Hamilton County at 386-792-1276 by Tuesday, September 3rd 4 pm if you plan to attend. (1.0 Private/Ag Row CEU will be given.)

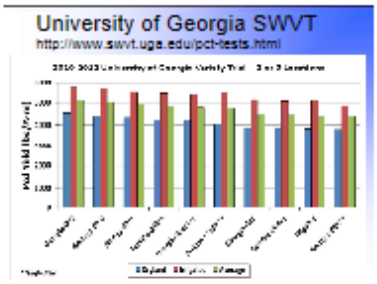
UF | IFAS Extension
UNIVERSITY of FLORIDA

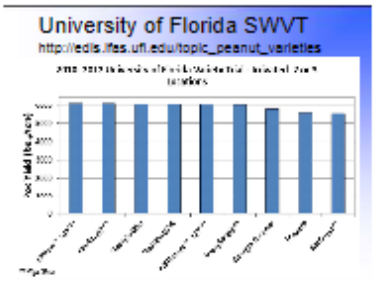

Peanut Varieties for 2013 and Beyond
Barry L. Tillman
UF FLORIDA

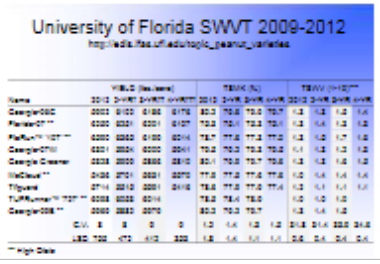

Seed Size and calcium requirement
Disease Resistance
Growth Habit
Maturity
Basics of disease resistance
Resistance
Immunity
Fungicides and Crop Rotation
Varieties of the future
High Oleic
What is it?
What are the advantages?

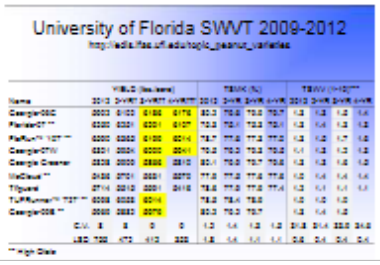


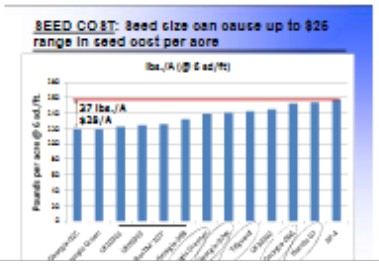

Principles of Variety Selection
1. Evaluate test data
Pod yield
Grade
Disease reaction
2. Match variety to situation
Disease resistance
Maturity
Plant type
3. Minimize Risk
Plant at least two varieties
4. Evaluate new varieties on your farm
Use proper methods


University of Georgia SWVT
http://www.swvt.uga.edu/pct-tests.html


University of Florida SWVT
http://edis.ifas.ufl.edu/topic_peanut_varieties


University of Florida SWVT 2009-2012
http://edis.ifas.ufl.edu/topic_peanut_varieties

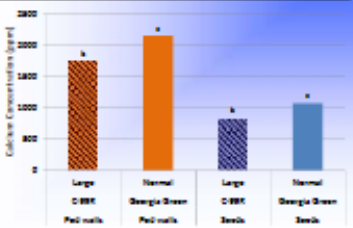

University of Florida SWVT 2009-2012
http://edis.ifas.ufl.edu/topic_peanut_varieties


SEED COST: Seed size can cause up to $26 range in seed cost per acre
lbs./A (@ 6 oz/ft)
27 lbs./A
$26/A

Seed calcium

- Importance
  - ✓ Germination
  - ✓ Grade- TSMK
  - ✓ Yield
- Symptoms
  - ✓ "Pops" – one or both seeds fail to develop
- Management
  - ✓ Apply gypsum
    - ➢ Commercial stock – pegging zone soil test
    - ➢ If growing for seed- ALWAYS
  - ✓ Foliar calcium is not recommended
  - ✓ Lime on the soil surface May be effective

Variety affects seed calcium concentration



Basics of disease resistance

- Two basic categories
  - ✓ Disease present
    - Varies from susceptible to resistant
  - ✓ No Disease
    - Immunity
- Resistance is relative (all have some disease)
  - ✓ We compare varieties and rank them
    - Uses a numerical scale like Peanut Rx
    - We have resistance to leaf spot, white mold, TSWV
- Immunity is complete
  - ✓ No disease occurs
    - A 'yes' or 'no' answer
    - Tifguard is immune to root knot nematode

White Mold

Five primary varieties for 2013 - others to come

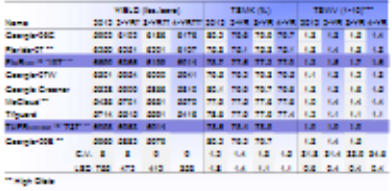
Variety (2013 version)	TSWV Index	Leaf Spot Index	White Mold Index
Georgia Green	30	20	25
Georgia-09D	20	25	25
FloRun™ '107'	20	25	20
Georgia Greener	10	20	20
Georgia-02C	15	20	10
Georgia-06G	10	20	20
Florida-07	10	20	15
Georgia-07W	10	20	15
Tifguard	10	15	15

Varieties for the near future (both High Oleic)

- ➢ Georgia-09B – 3163 seed acres in 2012
- ➢ FloRun™ '107' – 975 seed acres in 2012

University of Florida SWVT 2009-2012

http://edis.ifas.ufl.edu/topic_peanut_varieties



FloRun™ '107'

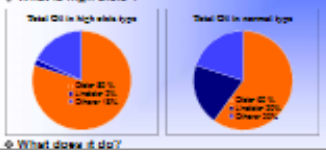
- ➢ High yield
- ➢ Very Good grades
- ➢ Medium maturity
- ➢ Diseases
  - o Good TSWV resistance
  - o Moderate White Mold Resistance
- ➢ Smaller seeds and pods than

TUFRunner™ '727'

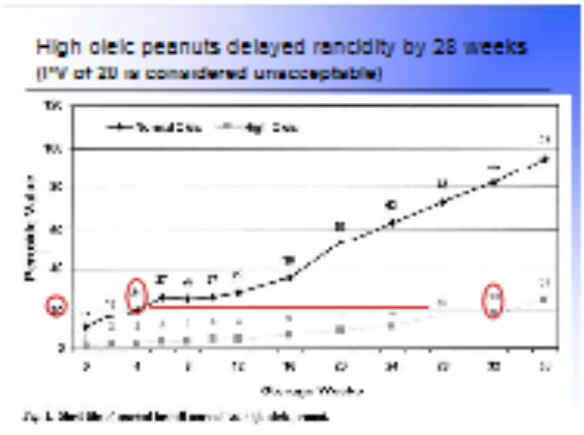
- ➢ High yield
- ➢ Excellent grades
- ➢ Medium-Late maturity
- ➢ Diseases
  - o Good TSWV resistance
  - o Very good White Mold Resistance
  - o Some Leaf Spot Resistance

Varieties of the future- High Oleic

- What is high oleic ?



- What does it do?


High oleic peanuts delayed rancidity by 28 weeks


Peanut Field Day- Marianna
August 15, 2013

UF UNIVERSITY of FLORIDA
IFAS Extension

Using On-Farm Trials To Manage soil borne and foliar peanut diseases.

Nicholas S. Dufault
Extension Specialist
Row Crops & Vegetables
Plant Pathology Department/IFAS
University of Florida

There were many peanut diseases present in Florida during the 2013 season.

Soil borne peanut diseases to watch for in 2013.

Cylindrocladium Black Rot (CBR)

Cylindrocladium crotalariae

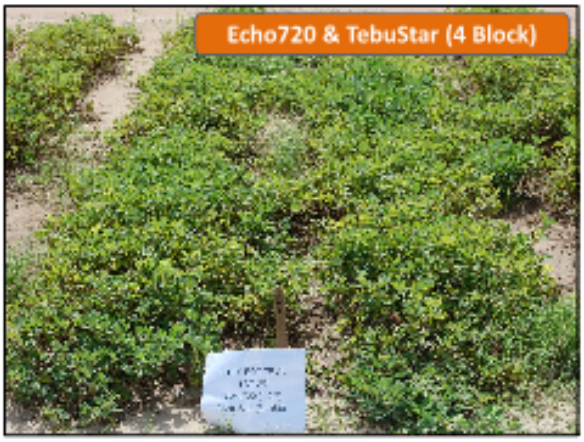
- CBR was observed in 2013 in multiple fields
- Moisture from tropical storms important
- **Sustained cold < 40 F reduces survival**

If you had CBR, an early season application of Proline may be useful.

- Neocosmospora is a CBR look-a-like
- Common in Panhandle
- Not considered yield reducing.

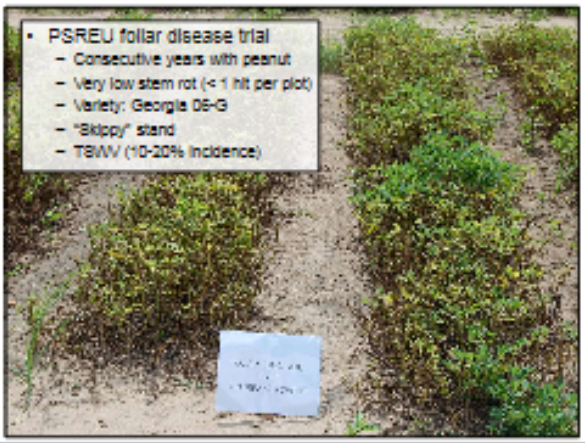
Stem rot trials at PSREU Citra, FL

- 2 yrs of peanuts, 2011 inoculated
- Variety: GA-06G, low stand (2 plants/ft)
- High levels of Late Leaf Spot
  - Developed in late August
  - Low levels of rust and ELS
  - Higher incidence of TSWV (10 - 20%)



It is important to rotate chemistries in your fungicide program.

- Tebuconazole did better when split by Abound vs. 4 block program
- Proline, Provost and Fontelis all controlled disease well.
- Abound was less effective at disease control
  - Performed better with Tebuconazole
  - Good rotational fungicide.



Rotating and mixing chemistries are critical steps to good late leaf spot control.

- Avoid a 4 block of Tebuconazole
- No indications Tilt Bravo provides better control
- Fontelis, Provost and Abound provide good control.

Trade Name	Common Name	FRAC
Proline	Prothioconazole	3
Bravo/Echo	Chlorothalonil	M5
Abound	Azoxystrobin	11
Headline	Pyraclostrobin	11
Tebuconazole	—	3
Artisan	Propiconazole/Flutolanil	3/7
Convoy	Flutolanil	7
Provost	Prothioconazole Tebuconazole	3
Topsin	Thiophanate-methyl	1
[illegible]	Streptomyces lydicus	NA
Eminent	Tetraconazole	3

Some varieties are better than others for late leaf spot resistance.

PEANUT Rx

Variety	TSWV	Leaf Spot	White Mold
Georgia-06G	10	20	20
Georgia-07W	10	20	10
Georgia Greener	10	20	20
Tifguard	10	15	15
Florida-07	10	20	15

Syngenta

• BrovoWS 24 oz/a + Monsoon 7.2 oz/a	7/09/13 48 DAP
• Abound 18 oz/a	7/26/13 65 DAP
• BravoWS 24 oz/a	8/07/13 77 DAP
• Abound 18 oz/a	8/21/13 91 DAP
• BrovoWS 24 oz/a	9/05/13 106 DAP
• BrovoWS 24oz/a	9/19/13 120 DAP

UF IFAS Extension

Bayer

• Provost 10.7 oz/a	7/26/13 65 DAP
• Provost 10.7 oz/a	8/07/13 77 DAP
• Provost 10.7 oz/a	8/21/13 91 DAP
• Provost 10.7 oz/a	9/05/13 106 DAP
• Chlorothalonil 24oz/a	9/19/13 120 DAP

UF IFAS Extension

Nichino

• Headline 9 oz/a	7/09/13 48 DAP
• Artisan 16 oz/a + Chlorothalonil 16oz/a	7/26/13 65 DAP
• Artisan 16 oz/a + Chlorothalonil 16oz/a	8/07/13 77 DAP
• Artisan 16 oz/a + Chlorothalonil 16oz/a	8/21/13 91 DAP
• Artisan 16 oz/a + Chlorothalonil 16oz/a	9/05/13 106 DAP
• Chlorothalonil 24oz/a	9/19/13 120 DAP

UF IFAS Extension

DuPont

• Headline 9 oz/a	7/09/13 48 DAP
• Fontelis 16 oz/a	7/26/13 65 DAP
• Fontelis 16 oz/a	8/07/13 77 DAP
• Fontelis 16 oz/a	8/21/13 91 DAP
• Chlorothalonil 24 oz/a	9/05/13 106 DAP
• Chlorothalonil 24oz/a	9/19/13 120 DAP

UF IFAS Extension

Appendix D

UF UNIVERSITY of FLORIDA
IFAS Extension
Hamilton County

1143 US Hwy. 41 NW
Jasper, FL 32052-5856
386-792-1276
386-792-6446 Fax

2013 Hamilton County Peanut On-Farm Trial Meeting
Survey/Evaluation September, 10, 2013
Hamilton County Extension Office

Please rate the following by circling the correct response.	Strongly Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Strongly Agree
1. I increased my knowledge in peanut cultivar selection.	1	2	3	4	5
2. I increased my knowledge in peanut fungicides.	1	2	3	4	5
3. I intend to apply the information learned in order to improve my peanut production program.	1	2	3	4	5
4. I increased my knowledge in the area of foliar and soil born peanut diseases.	1	2	3	4	5
5. Topics discussed were relevant to my needs as a peanut producer.	1	2	3	4	5
6. The presenters were knowledgeable in the subject matter.	1	2	3	4	5
7. The meeting and/or handouts will be useful for future reference.	1	2	3	4	5
PLEASE ANSWER THE FOLLOWING:					
8. What topics do you suggest for future meetings?					
9. Any additional comments:					

Thanks!!!