2025 Evaluation of Different Rates & Split Application of Potassium in Peanut

Vikash Verma, Lydia Bolton, Gabrielle Alves Comitre, Valkiria Borsa Piroli, and Sudeep Sidhu
North Florida Research and Education Center, Agronomy Department

Objective: To determine the effectiveness of split application of potassium fertilizer in peanut in sandy soils
Locations: Citra, FL
Design: Randomized Complete Block, 4 replications, 8 row plots
Peanut Variety: GA16HO
Planting Date: May 14, 2025
Split K Application Dates: May 28, July 9, July 23

Treatments:

T1- 0 lbs/acre
T2- 50 lbs/acre at planting
T3- 50 lbs/acre (50% at planting and 50% at bloom)
T4- 50 lbs/acre (50% at planting, 25% at bloom and 25% 2 weeks after bloom)
T5- 100 lbs/acre at planting
T6- 100 lbs/acre (50% at planting and 50% at bloom)
T7- 100 lbs/acre (50% at planting, 25% at bloom and 25% 2 weeks after bloom)
T8- 150 lbs/acre at planting
T9- 150 lbs/acre (50% at planting and 50% at bloom)
T10-150lbs/acre(50%atplanting,25%atbloomand25%2weeksafterbloom)
T11-200lbs/acreatplanting
T12-200lbs/acre(50%atplantingand50%atbloom)
T13-200lbs/acre(50%atplanting,25%atbloomand25%2weeksafterbloom)
T14-250lbs/acreatplanting
T15-250lbs/acre(50%atplantingand50%atbloom)
T16-250lbs/acre(50%atplanting,25%atbloomand25%2weeksafterbloom)

2025 Evaluation of Different Rates & Split Application of Potassium in Peanut

UF IFAS UNIVERSITY of FLORIDA

Field 1

101	102	103	104	105	106	107	108
116	115	114	113	112	111	110	109
206	215	208	212	211	205	214	203
209	210	207	213	204	201	216	202
316	301	312	303	305	302	309	307
306	310	313	311	304	308	314	315
411	403	405	412	416	406	408	401
407	409	402	414	413	415	404	410

Field 2

111	115	104	108	113	110	105	114
102	109	112	106	103	101	116	107
213	215	214	207	204	209	208	202
212	201	211	203	216	210	206	205
303	305	316	306	307	301	309	314
315	302	313	312	308	311	304	310
412	411	410	413	405	401	414	416
406	403	415	407	409	408	402	404

Photo 1: Planting on May 14, 2025.

Photo 2: Vikash spreading fertilizer.

2025 Evaluation of Control Release Fertilizer (CRF) Application in Peanut

Vikash Verma, Lydia Bolton, Gabrielle Alves Comitre, Valkiria Borsa Piroli, and Sudeep Sidhu
North Florida Research and Education Center, Agronomy Department

Objective: To determine the effectiveness of control release fertilizer in peanut in sandy soils
Locations: Citra, FL
Design: Randomized Complete Block, 4 replications, 8 row plots
Peanut Variety: GA16HO
Planting Date: May 14, 2025
Application Date: May 28, 2025

Treatments:
T1- 100 lbs./acre (Conventional)
T2- 100 lbs./acre (CRF)
T3- (80:20) (Conventional: CRF) – 100 lbs./acre
T4- (80:20) (CRF: Conventional) – 100 lbs./acre
T5- 150 lbs./acre Conventional
T6- 150 lbs./acre CRF
T7- (80:20) (Conventional: CRF) – 150 lbs./acre
T8- (80:20) (CRF: Conventional) – 150 lbs./acre

2025 CRF Map

2025 Evaluation of Control Release Fertilizer (CRF) Application in Peanut

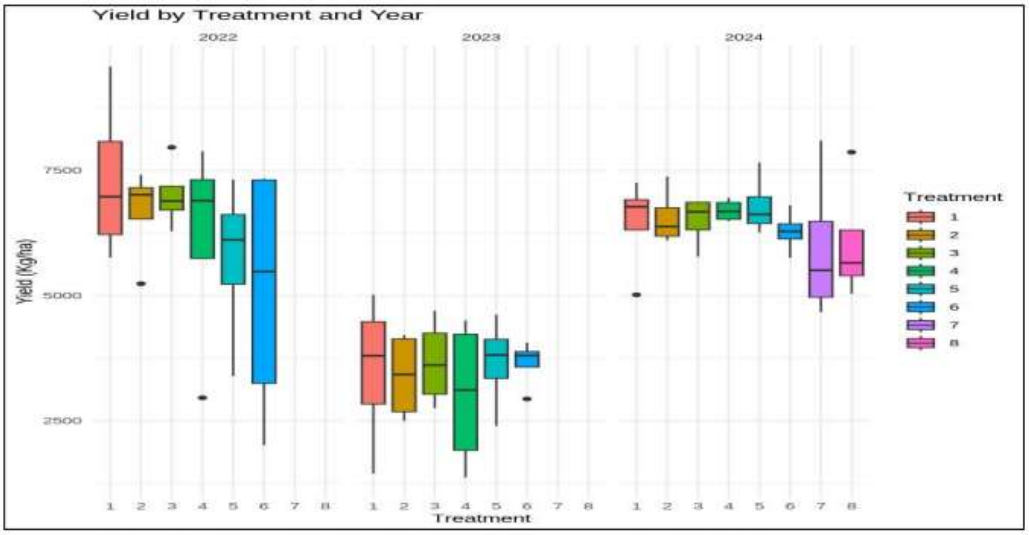

Figure 1: Peanut yield (kg/ha) in year (2022-2024).

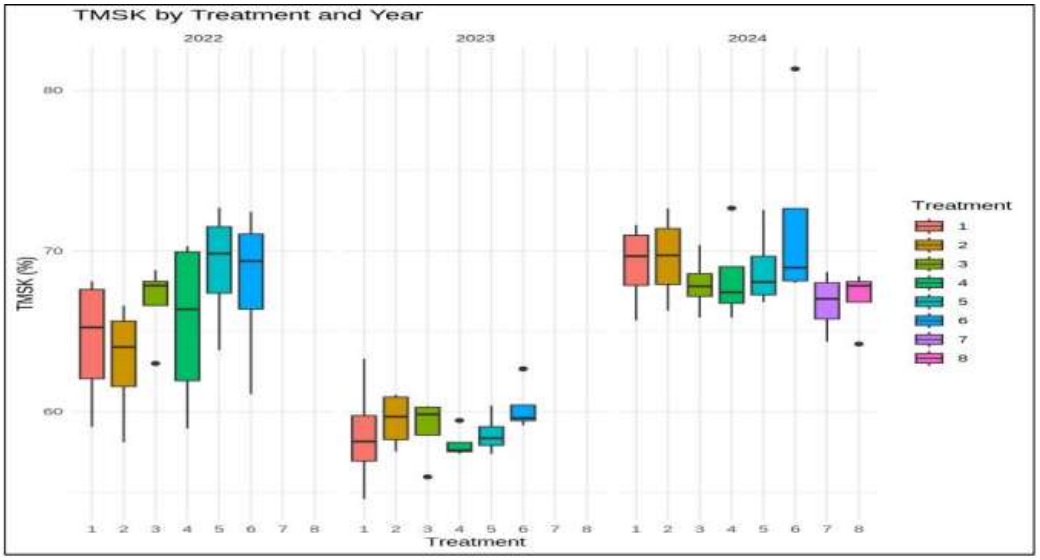

Figure 2: Total Mature Sound Kernel TMSK (%) in year (2022-2024).

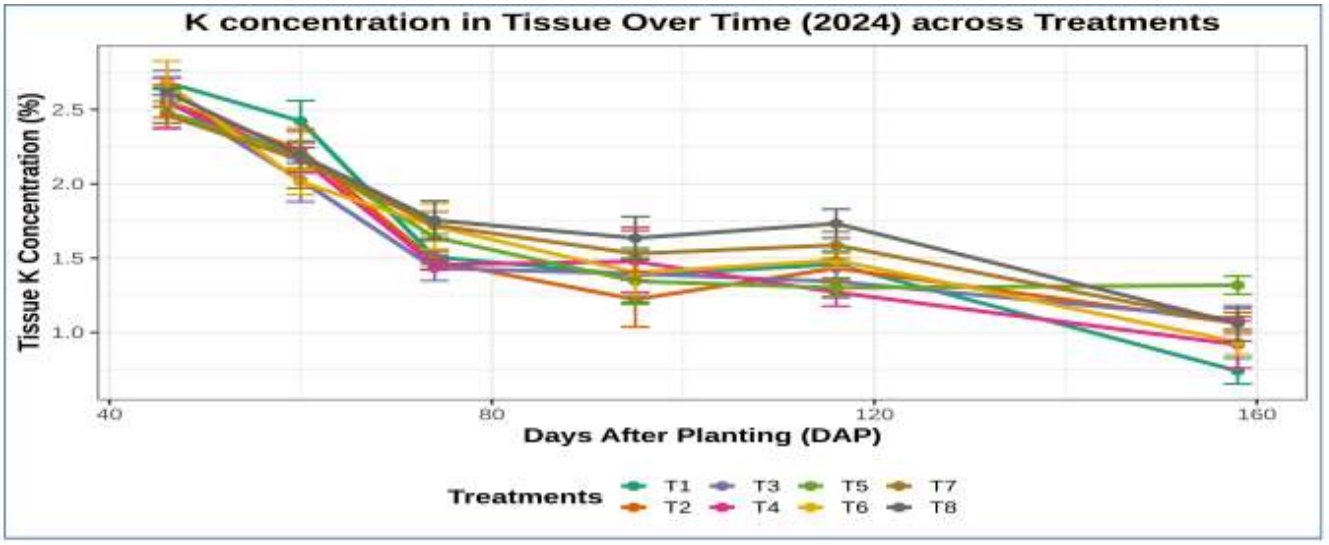

Figure 3:Tissue K concentration in year 2024.

2025 Chelated Iron Application in Peanut

Gabrielle Alves Comitre, Lydia Bolton, Valkiria Borsa Piroli, Vikash Verma, and Sudeep Sidhu
North Florida Research and Education Center, Agronomy Department

Objective: To evaluate the most effective method and rate of chelated iron for peanuts grown in sandy soils
Locations: Live Oak, FL
Design: Randomized Complete Block, 4 replications
Peanut Variety: GAO6G
Planting Date: May 12, 2025
Chelated iron foliar spray dates: June 16, June 23, July 3, July 11, & July 16

Treatments:

T1- Control
T2- In furrow at planting (5lb/acre)
T3- Banding at planting (5lb/acre)
T4- Spray (1.5 lb/acre) Start 35 days after planting every week for 5 weeks
T5- Spray (2.5 lb/acre) Start at 35 days after planting every week for 5 weeks

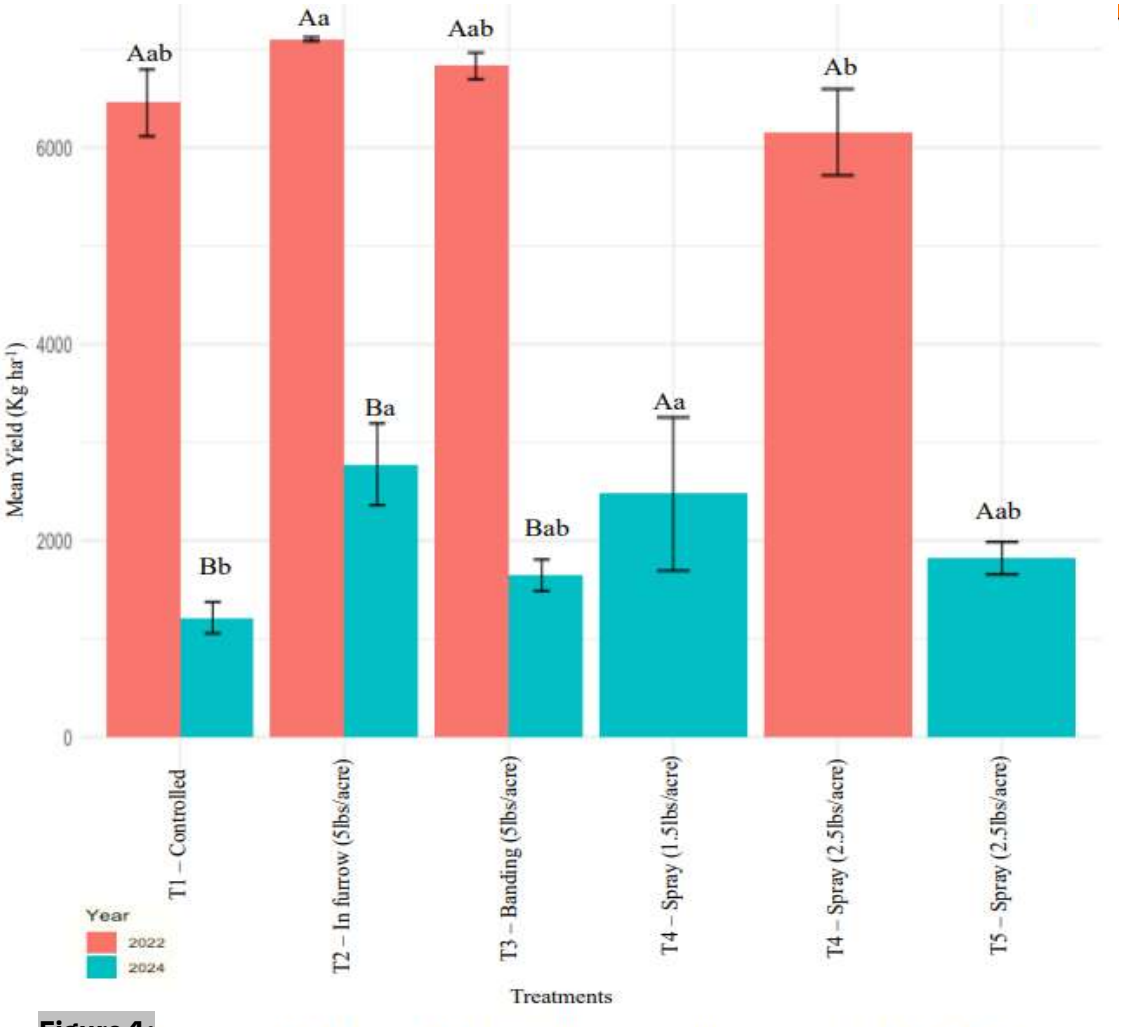

Figure 1: Mean peanut yield comparation across treatments and years – 2022 and 2024. Post hoc mean comparisons were performed using Fisher LSD with a significance threshold set at α=0.05. Uppercase letters denote significant differences between years, while lowercase letters indicate significant differences among treatments. Bars not sharing a common letter within a given treatment are significantly different.

2025 Chelated Iron Application in Peanut

Figures 1A and 1B: Soil and tissue iron content in different days after planting in 2022 (1A) and 2024 (1B) seasons Post hoc mean comparisons were performed using Fisher LSD with a significance threshold set at α=0.05. Uppercase letters denote significant differences between years, while lowercase letters indicate significant differences among treatments. Bars not sharing a common letter within a given treatment are significantly different.