



DIVISION OF AGRICULTURE
RESEARCH & EXTENSION

University of Arkansas System

Edamame Production Practices: What We Know Now

Jeremy Ross
Soybean Agronomist

Edamame

- Edamame – “beans on a branch”
- Native of Japan
- Same species (*Glycine max*) as commercial soybean
- Specifically bred for large seeds, sweeter flavor, and creamier texture



Edamame in Arkansas

- Specialty crop
 - Arkansas River Valley, North Central Arkansas
- American Vegetable Soybean and Edamame, Inc.
 - Mulberry, AR
- UA Soybean Breeding Program

Objectives

- Establish Extension Research/Demonstrations
- Organize and conduct field days
- Develop educational materials



Insect Research

- Seed Treatment Study
- Comparing conventional vs. edamame insect pressure
- Stink bug threshold study

Labeled Insecticides

- Acramite
- Admire 2 Flowable
- Brigadier
- Capture
- Cruiser
- CruiserMaxx
- Hero
- Intrepid
- Mustang
- Proaxis
- Provado
- Warrior

Disease Research

- Fungicide Studies
- Nematode screening
- Variety screening

Labeled Fungicides

- Apron XL
- Endura
- Headline
- Maxim XL
- Quadris
- Serenade

Weed Science Research

- Herbicide sensitivity trials
- Post herbicides

Labeled Herbicides

- AIM
- Dual Magnum
- Intensity One
- Select Max
- Treflan HFP
- Roundup (Burndown)
- Lorox

Edamame Seeding Rate Study

- Variety 8080
- Variety 4002

- 50,000 seed/ac
- 75,000 seed/ac
- 100,000 seed /ac
- 125,000 seed/ac



Edamame Seeding Rate Study

| Variety | Seeding Rate | 3 Bean Wt (lb) | 2 Bean (lb) | Other |
|---------|--------------|----------------|-------------|----------|
| 8080 | 50,000 | 0.202 c | 0.674 a | 0.436 ab |
| 8080 | 75,000 | 0.233 c | 0.839 a | 0.455 a |
| 8080 | 100,000 | 0.310 c | 1.154 a | 0.544 a |
| 8080 | 125,000 | 0.209 c | 0.930 a | 0.547 a |
| 4002 | 50,000 | 0.818 a | 0.934 a | 0.290 bc |
| 4002 | 75,000 | 0.645 ab | 0.784 a | 0.268 c |
| 4002 | 100,000 | 0.575 b | 0.619 a | 0.256 c |
| 4002 | 125,000 | 0.509 b | 0.528 a | 0.235 c |

Edamame N

Rate/Timing/Product

- Variety 8080
- Variety 4002
- Urea + Agrotain
- Amm. Sulfate
- Preplant
- V6
- R1
- R3

Edamame N

Rate/Timing/Product

- Significantly different yield between varieties
- No significance with rate, timing, or product



Edamame K Rate/Product Study

- Variety 8080
- Variety 4002
- K_2O
- K_2SO_4
- 0 lb/ac
- 60 lb/ac
- 120 lb/ac

Edamame K Rate/Product Study

- Significantly different yield between varieties
- No significant difference in rate or product

Edamame P Rate Study

- Variety 8080
- Variety 4002

- 0 lb/ac
- 40 lb/ac
- 80 lb/ac
- 120 lb/ac
- 160 lb/ac



Edamame P Rate Study

- Significantly different yields between varieties
- No significant difference between rates

- Questions?