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DATE: December 6, 2022

TO: Researchers

FROM: Nathan Sano, Manger

RE: Request of Proposals

The following is a list of research priorities discussed and approved by the California Dry Bean Advisory Board. While the Board recognizes the importance of the breeding program, Council members expressed their desire for more research projects focused on weed and insect control as these issues continue to impact production each year. With the concerns over nitrogen use and future monitoring there is some interest in nitrogen studies. These priorities reflect current issues and would complement the breeding research program.

If there are any questions about the research priorities, please contact Nicholas Clark of UCCE Kings/Tulare/Fresno Counties, Michelle Leinfelder-Miles of UCCE, San Joaquin County or Board manager Nathan Sano.

**Baby Lima Council**

Breeding Agronomics Food Science

1. Yield/Better setting 1. Lygus 1. Food Innovation

Varieties 2. Black bean aphid 2. Nutrition

1. Lygus resistance 3. Plant growth regulator work to 3. Product Innovation

3. Nematode resistance help with bloom set

4. Drought tolerance 4. Water efficiency/Drip Irrigation

5. Symphylans

**Large Lima Council**

1. Yield/ better bloom set
2. Lygus
3. Nematodes
4. Mite Control
5. Centipedes
6. Drip/materials within drip
7. Fertility/Nitrogen

**Blackeye Council**

Breeding New Varieties

1. Adding lygus and aphid resistance into blackeye varieties
2. Adding Fusarium and Nematode Resistance to Blackeye 50
3. Continue development of fusarium and nematode resistance into Blackeye 46 prototypes
4. Breeding for a more upright plant
5. Water efficiency and drought tolerance
6. Continue with existing varietal development for full season, high-yielding varieties
7. Get seeds of promising lines into growers’ strip trials as soon as possible for realistic evaluation

Agronomic Priorities

1. Protection against weeds (nightshade, Pigweed, morning glory and nutsedge)
2. Protection against lygus
3. Protection against aphids and other insects

**Garbanzo Council**

Plant Breeding Priorities Agronomic Priorities

1. Yield 1. Weed Control

2. Seed Quality 2. White Mold

3. Ascochyta Resistance 3. Virus Control/Education

4. White Mold/Soil Disease Resistance 4. Sanitation Education

5. Temperature and Regional Acclimation 5. Irrigation Levels and Timing

6. Fusarium Resistance 6. Yield Variations between Test Plots

7. Salt Tolerance and Growers’ Fields

**Common Bean Council**

1. Development or evaluation of higher yielding varieties for California production
2. Development of cultural practices including safer crop protection techniques to cut production input costs and meet future challenges
3. Development of a plant with a better root system
4. Development of a variety that will produce under organic growing conditions and cultural practices
5. Water efficiency and drip irrigation