

Technical Report

TR08-04 January 2008



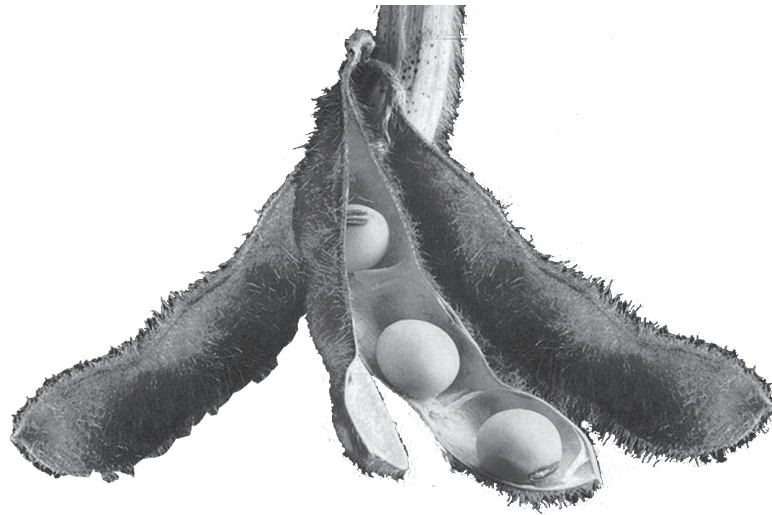
Agricultural Experiment Station

College of
Agricultural Sciences

Department of
Soil and Crop Sciences

Arkansas Valley
Research Center

Extension



MAKING BETTER
DECISIONS

1999-2007 Colorado Soybean
Variety Performance Trials

Acknowledgments

The authors express their gratitude to Yuma farmers who, over the last six years have generously contributed the use of their land, equipment, and time to allow CSU to conduct these trials for the good of all Colorado soybean producers.

Bob Taylor- 2005, 2006, 2007
Max Olsen- 2003
Rod Hahn- 2002
Joe Harper- 2001

We are also grateful to Abdel Berrada (Arkansas Valley Research Station), Duane Sellmer (Anheuser-Busch/Nutri-Turf, Inc.), and Merle Vigil (USDA-ARS Central Great Plains Research Station) for significant contributions they made to the soybean variety testing program by conducting 2007 limited irrigation and dryland variety trials.

We are thankful to Ron Meyer (former Golden Plains Area Extension Agronomist, Kit Carson County) and Tim Stahlecker (Stratton Equity Coop) who collaborated in conducting an irrigated soybean variety trial at Stratton on the Jerry and Lester Hasart farm.

Research conducted by Colorado State University Crops Testing Program
Department of Soil and Crop Sciences
Cooperative Extension
Arkansas Valley Research Center
Anheuser-Busch
USDA-ARS Central Great Plains Research Station
Kit Carson County Extension and the Stratton Equity Coop

Disclaimer

Mention of a trademark proprietary product does not constitute endorsement by the Colorado Agricultural Experiment Station.

Colorado State University is an equal opportunity/affirmative action institution and complies with all Federal and Colorado State laws, regulations, and executive orders regarding affirmative action requirements in all programs. The Office of Equal Opportunity is located in 101 Student Services. In order to assist Colorado State University in meeting its affirmative action responsibilities, ethnic minorities, women, and other protected class members are encouraged to apply and to so identify themselves.

Table of Contents

| | |
|---|----|
| AUTHORS and INFORMATION RESOURCES | 2 |
| 1999-2007 COLORADO SOYBEAN VARIETY PERFORMANCE TRIAL RESULTS | 3 |
| Introduction | 3 |
| 2007 COLORADO SOYBEAN PERFORMANCE TRIALS | 4 |
| Table 1. 2007 Irrigated Soybean Variety Performance Trial at Yuma ¹ | 4 |
| Table 2. 2-Yr Average Irrigated Soybean Variety Performance Trial at Yuma in 2006-07. | 4 |
| Table 3. 2007 Dryland* Soybean Variety Performance Trial at Akron ¹ | 5 |
| Table 5. 2007 Limited Irrigation* Medium Maturity Soybean Variety Trial at Fort Collins ¹ | 7 |
| Table 6. 2007 Limited Irrigated* Early Maturity Soybean Variety Performance at Rocky Ford ¹ | 8 |
| Table 7. 2007 Limited Irrigated* Medium Maturity Soybean Variety Performance at Rocky Ford ¹ | 9 |
| Table 8. 2007 Irrigated Soybean Variety Performance Trial at Stratton ¹ | 10 |
| 2006 COLORADO SOYBEAN PERFORMANCE TRIALS | 11 |
| Table 1. 2006 Irrigated trial of soybean varieties in row planting at Yuma ¹ | 11 |
| Table 2. 2-yr average soybean variety performance in row planting at Yuma in 2005-06. | 11 |
| Table 3. 2006 Irrigated trial of soybean varieties in solid planting at Yuma ¹ | 11 |
| Table 4. 2-yr average soybean variety performance in solid planting at Yuma in 2005-06. | 12 |
| 2005 COLORADO SOYBEAN PERFORMANCE TRIALS | 13 |
| 2005 COLORADO SOYBEAN PERFORMANCE TRIALS | 13 |
| Table 1. Irrigated trial of soybean varieties in solid planting at Yuma ¹ | 13 |
| Table 2. Irrigated trial of soybean varieties in row planting at Yuma ¹ | 13 |
| 2003 COLORADO SOYBEAN PERFORMANCE TRIALS | 14 |
| Table 1. Irrigated soybean variety performance trial at Rocky Ford ¹ | 14 |
| Table 2. Irrigated soybean variety performance trial at Yuma ¹ | 15 |
| 2002 COLORADO SOYBEAN PERFORMANCE TRIALS | 16 |
| Table 1. Irrigated soybean variety performance trial at Rocky Ford ¹ | 16 |
| Table 2. Irrigated soybean variety performance trial at Yuma ¹ | 17 |
| Table 1. Irrigated soybean variety performance trial at Rocky Ford ¹ | 18 |
| Table 2. Irrigated soybean variety performance trial at Yuma ¹ | 19 |
| 2000 COLORADO SOYBEAN PERFORMANCE TRIALS | 20 |
| Table 1. Irrigated soybean variety performance trial at Rocky Ford ¹ | 20 |
| 1999 COLORADO SOYBEAN PERFORMANCE TRIALS | 21 |
| Table 1. Irrigated soybean variety performance trial at Rocky Ford ¹ | 21 |
| Seed Company Entrants in the Colorado Soybean Performance Trials from 1999-2007 | 22 |

AUTHORS and INFORMATION RESOURCES

Dr. Jerry Johnson - Research Scientist/Extension Specialist/Crop Production, Colorado State University, Department of Soil and Crop Sciences, C12 Plant Science Building, Fort Collins, CO 80523-1170; telephone 970-491-1454; fax 970-491-2758; e-mail jerry.johnson@colostate.edu.

Alicia Davisson - Research Associate/Crops Testing Program, Colorado State University, Department of Soil and Crop Sciences, C03 Plant Science Building, Fort Collins, CO 80523-1170; telephone 970-491-1914; fax 970-491-2758; e-mail cas_csucroptesting@mail.colostate.edu.

Jim Hain - Research Associate/Crops Testing Program, Colorado State University, Department of Soil and Crop Sciences, Central Great Plains Research Station, 40335 County Road GG, Akron, CO 80720; telephone 970-554-0980; fax 970-345-2088.

Dr. Abdel Berrada - Superintendent/Research Scientist, Colorado State University, Arkansas Valley Research Center, 27901 Road 21, Rocky Ford, CO 81067; telephone 719-254-6312; fax 719-254-6312; e-mail abdel.berrada@colostate.edu.

Cynthia Johnson – Former Research Associate/Crops Testing Program, Colorado State University

Dr. Calvin Pearson – Professor/Extension Specialist/New and Alternative Crops, Colorado State University, Western Colorado Research Center, 1910 L Road, Fruita, CO 81521; telephone 970-858-3629; fax 970-858-0461; e-mail calvin.pearson@colostate.edu

Ron Meyer – former Golden Plains Area Extension Agronomist, Kit Carson County

Dr. Merle Vigil – Research Leader/Research Soil Scientist, USDA-ARS Central Great Plains Research Station, 40335 County Road GG, Akron, CO 80720; telephone 970-345-2259; fax 970-345-2088; email merle.vigil@ars.usda.gov.

1999-2007 COLORADO SOYBEAN VARIETY PERFORMANCE TRIAL RESULTS

Introduction

In recent history, CSU has conducted one or two soybean variety trials per year since 1999 and it is useful to provide seed companies, collaborating scientists and extension agents, and our producers with results that have been accumulated over the past nine years of experience. No results appear for 2004 due to loss of the trial to hail damage. Like in 2006, in 2007, due to excellent management and favorable climatic conditions, a record yields (99 bu/ac) was harvested for the top variety in our Yuma variety trial. The accumulated results for years show that there is excellent potential for increasing soybean production in Colorado. This is even more notable because several biofuel companies have expressed interest in constructing crusher/processor facilities in Colorado and soybeans may become the biofuel crop of preference.

CSU conducts variety performance trials to provide unbiased and reliable information to Colorado producers so they can select the best varieties for their farming conditions. Variable climatic conditions, innovations from biotechnology, acquisitions and mergers of seed companies, and rapid evolution of new varieties means that up-to-date and timely unbiased crop performance information is increasingly important to Colorado soybean producers.

In 2007, Colorado State University personnel evaluated commercial soybean variety performance under 30-inch rows under fully irrigated conditions at Yuma, under dryland conditions at Akron, and under limited irrigation conditions at the Anheuser-Busch Nutri-Turf Farm outside Fort Collins and at the Arkansas Valley Research Station at Rocky Ford. Some of these trials included early, medium, and late maturity group soybeans. All soybean grain yields are reported in bu/ac and adjusted to 13.0% moisture content.

2007 COLORADO SOYBEAN PERFORMANCE TRIALS

Table 1. 2007 Irrigated Soybean Variety Performance Trial at Yuma¹.

| Hybrid | Yield ² | Moisture | Test Weight | Plant Height |
|------------------------------------|--------------------|------------|-------------|--------------|
| | bu/ac | % | lb/bu | inches |
| Dyna-Gro 37Y21 | 99.4 | 8.8 | 56.4 | 30 |
| NK Brand S28-B4 | 88.1 | 8.6 | 56.0 | 34 |
| Farmer Check ³ | 83.7 | 8.5 | 55.7 | 37 |
| Dyna-Gro 31D20 | 77.4 | 8.3 | 56.4 | 34 |
| NK Brand S28-G1 | 75.6 | 8.8 | 55.7 | 34 |
| Dyna-Gro 37T26 | 75.2 | 9.0 | 55.1 | 37 |
| Dyna-Gro 35F25 | 73.8 | 8.7 | 55.0 | 34 |
| Dyna-Gro 36F22 | 70.2 | 8.4 | 55.8 | 26 |
| Dyna-Gro 36C28 | 69.7 | 8.8 | 55.3 | 35 |
| Dyna-Gro 33D27 | 66.9 | 9.2 | 55.9 | 39 |
| Average | 78.0 | 8.7 | 55.7 | 34 |
| ⁴ LSD _(0.30) | 7.5 | 0.2 | 1.0 | 2 |
| ⁴ LSD _(0.05) | 8.4 | 0.4 | 1.9 | 5 |

¹Trial conducted on the Bob Taylor farm; seeded 05/25 and harvested 10/02/07.

²Yields corrected to 13% seed moisture.

³Farmer Check is Asgrow SN79553.

⁴LSD_(0.30) is more useful to producers selecting a variety to plant but LSD_(0.05) is preferred by some seed companies.

Site Information

Plot Size: 7.5' x 31' with 30" row spacing

Experimental Design: randomized complete block; 3 replications

Seeding Rate: approximately 165,000 seeds/acre

Previous Crop: Corn

Irrigation: Sprinkler

Soil Type: Rago Silt Loam

Herbicide: Round-up

Table 2. 2-Yr Average Irrigated Soybean Variety Performance Trial at Yuma in 2006-07.

| Hybrid | Yield | Moisture | Test Weight |
|-----------------|-------------|------------|-------------|
| | bu/ac | % | lb/bu |
| NK Brand S28-G1 | 87.7 | 7.9 | 56.4 |
| Dyna-Gro 37T26 | 86.6 | 7.9 | 56.4 |
| Average | 87.2 | 7.9 | 56.4 |

Table 3. 2007 Dryland* Soybean Variety Performance Trial at Akron¹.

| Hybrid | Yield ² | Moisture | Test Weight |
|------------------------------------|--------------------|------------|-------------|
| | bu/ac | % | lb/bu |
| NK Brand S12-V7 | 18.2 | 6.8 | 54.9 |
| Dyna-Gro 39D11 | 16.3 | 6.7 | 50.3 |
| Dyna-Gro 36P10 | 16.1 | 6.4 | 50.6 |
| Dyna-Gro 33X19 | 15.9 | 6.7 | 42.5 |
| NK Brand S08-C3 | 13.8 | 6.5 | 45.2 |
| Roughrider Genetics RG607RR | 12.8 | 6.9 | 41.8 |
| NK Brand S02-M9 | 11.8 | 6.6 | 36.8 |
| Dyna-Gro 32K16 | 11.7 | 6.6 | 38.4 |
| NK Brand S14-A7 | 11.5 | 6.9 | 37.7 |
| Roughrider Genetics RG604RR | 10.0 | 6.9 | 32.4 |
| Roughrider Genetics RG405RR | 9.9 | 6.9 | 32.4 |
| Dyna-Gro 33T06 | 9.6 | 6.8 | 31.3 |
| Roughrider Genetics RG603RR | 8.3 | 7.1 | 29.4 |
| Roughrider Genetics RG200RR | 7.8 | 7.0 | 25.6 |
| Roughrider Genetics RG600RR | 7.5 | 7.2 | 24.4 |
| Roughrider Genetics RG601NRR | 7.2 | 7.2 | 23.8 |
| Roughrider Genetics RG6008RR | 5.9 | 7.2 | 19.4 |
| Average | 11.4 | 6.8 | 36.3 |
| ³ LSD _(0.30) | 3.6 | 0.2 | 9.6 |
| ³ LSD _(0.05) | 7.0 | 0.5 | 18.5 |

*Total Precipitation: 7.58 inches.

¹Trial conducted at the Central Great Plains Field Station; seeded 5/14 and harvested 9/5.

²Yields corrected to 13% seed moisture.

³LSD_(0.30) is more useful for producers using these results to select a variety but some seed companies prefer LSD_(0.05).

Site Information

Previous Crop: barley

Fertilizer: None

Herbicide: Round-up Ready

Insecticide: None

Plot Size: 5' x 15' with 30" row spacing

Seeding Rate: 130,000 seeds/ac

Table 4. 2007 Limited Irrigation* Early Maturity Soybean Variety Trial at Fort Collins¹.

| Hybrid | Yield ² bu/ac | Moisture % | Test Weight lb/bu |
|------------------------------------|-----------------------------|---------------|----------------------|
| NK Brand S12-V7 | 30.3 | 7.7 | 57.2 |
| NK Brand S14-A7 | 28.0 | 7.6 | 56.2 |
| Roughrider Genetics RG405RR | 27.0 | 7.6 | 51.5 |
| Dyna-Gro 33X19 | 26.2 | 8.0 | 48.1 |
| Check One | 24.7 | 7.4 | 56.1 |
| Roughrider Genetics RG603RR | 22.7 | 7.4 | 56.0 |
| Dyna-Gro 36P10 | 22.5 | 7.3 | 53.9 |
| Dyna-Gro 39D11 | 22.4 | 7.8 | 56.7 |
| NK Brand S02-M9 | 22.2 | 7.5 | 54.6 |
| Roughrider Genetics RG607RR | 21.3 | 7.9 | 56.1 |
| NK Brand S08-C3 | 20.8 | 7.7 | 43.0 |
| Roughrider Genetics RG604RR | 16.6 | 7.6 | 47.6 |
| Dyna-Gro 32K16 | 15.8 | 7.4 | 39.7 |
| Roughrider Genetics RG200RR | 15.6 | 7.3 | 46.2 |
| Roughrider Genetics RG601NRR | 15.6 | 7.7 | 49.9 |
| Dyna-Gro 33T06 | 15.6 | 7.9 | 45.6 |
| Roughrider Genetics RG200RR | 13.7 | 7.5 | 45.2 |
| Roughrider Genetics RG6008RR | 10.9 | 7.5 | 35.8 |
| Average | 20.7 | 7.6 | 49.9 |
| ³ LSD _(0.30) | 6.6 | 0.3 | 8.8 |
| ³ LSD _(0.05) | 12.7 | 0.6 | 16.9 |

*Total water received (precipitation plus irrigation) = 13.7 inches. The trial site soil was highly sodic which resulted in undiagnosed but visible nutrient deficiency symptoms.

¹Trial conducted at the Anheuser-Busch Nutri-Turf Farm; seeded 5/14 and harvested 9/5.

²Yields corrected to 13% seed moisture.

³LSD_(0.30) is more useful for producers using these results to select a variety but some seed company collaborators use LSD_(0.05).

Site Information

Previous Crop: corn

Herbicide: Round-up

Plot Size: 5' x 15' with 30" row spacing

Seeding Rate: 130,000 seeds/ac

Table 5. 2007 Limited Irrigation* Medium Maturity Soybean Variety Trial at Fort Collins¹.

| Hybrid | Yield ² bu/ac | Moisture % | Test Weight lb/bu |
|------------------------------------|-----------------------------|---------------|----------------------|
| Dyna-Gro 37T26 | 31.9 | 7.3 | 57.1 |
| Dyna-Gro 36C28 | 29.8 | 7.5 | 56.8 |
| NK Brand S28-G1 | 29.7 | 7.8 | 57.4 |
| Dyna-Gro 37Y21 | 28.6 | 7.5 | 56.9 |
| NK Brand S28-B4 | 24.8 | 7.6 | 57.0 |
| Dyna-Gro 36F22 | 24.1 | 7.4 | 54.4 |
| Dyna-Gro 33D27 | 21.9 | 7.6 | 56.8 |
| Dyna-Gro 35F25 | 18.8 | 7.5 | 54.8 |
| Dyna-Gro 31D20 | 16.0 | 7.3 | 51.4 |
| Average | 25.2 | 7.5 | 55.8 |
| ³ LSD _(0.30) | 3.9 | 1.9 | 1.9 |
| ³ LSD _(0.05) | 7.7 | 0.2 | 3.8 |

*Total water received (precipitation plus irrigation) = 13.7 inches. The trial site soil was highly sodic which resulted in undiagnosed but visible nutrient deficiency symptoms.

¹Trial conducted at the Nutri-Turf Farm; seeded 5/14 and harvested 9/28.

²Yields corrected to 13% seed moisture.

³LSD_(0.30) is more useful for producers using these results to select a variety but some seed company collaborators wish to use LSD_(0.05).

Site Information

Previous Crop: corn

Herbicide: Round-up

Plot Size: 5' x 15' with 30" row spacing

Seeding Rate: 130,000 seeds/ac

Table 6. 2007 Limited Irrigated* Early Maturity Soybean Variety Performance at Rocky Ford¹.

| Hybrid | Yield ² | Moisture | Test Weight | Shattering ³ |
|------------------------------------|--------------------|-------------|-------------|-------------------------|
| | bu/ac | % | lb/bu | (1-10) |
| NK Brand S08-C3 | 48.9 | 10.7 | 59.1 | 0.8 |
| Dyna-Gro 33X19 | 48.1 | 11.7 | 56.8 | 2.0 |
| Dyna-Gro 39D11 | 43.2 | 12.5 | 57.2 | 0.7 |
| Roughrider Genetics RG604RR | 42.3 | 11.8 | 58.2 | 2.3 |
| NK Brand S14-A7 | 39.9 | 12.3 | 57.2 | 1.2 |
| NK Brand S02-M9 | 39.5 | 12.4 | 57.5 | 2.0 |
| Dyna-Gro 36P10 | 38.9 | 12.9 | 58.1 | 4.0 |
| Dyna-Gro 32K16 | 38.1 | 12.1 | 54.9 | 2.7 |
| NK Brand S12-V7 | 35.0 | 10.3 | 60.8 | 3.0 |
| Roughrider Genetics RG607RR | 32.0 | 10.5 | 57.9 | 4.0 |
| Roughrider Genetics RG200RR | 29.4 | 11.9 | 58.9 | 4.0 |
| Roughrider Genetics RG405RR | 27.8 | 11.7 | 58.3 | 4.7 |
| Roughrider Genetics RG600RR | 27.4 | 12.1 | 56.5 | 3.3 |
| Roughrider Genetics RG601NRR | 26.5 | 11.2 | 58.8 | 3.7 |
| Dyna-Gro 33T06 | 24.6 | 14.0 | 55.8 | 5.0 |
| Roughrider Genetics RG603RR | 24.1 | 12.7 | 57.5 | 8.0 |
| Roughrider Genetics RG6008RR | 20.6 | 11.9 | 57.3 | 5.0 |
| Average | 34.5 | 11.9 | 57.7 | 3.3 |
| ⁴ LSD _(0.30) | 3.8 | 0.5 | 1.1 | |
| ⁴ LSD _(0.05) | 7.3 | 1.0 | 2.1 | |

*Total water received (precipitation plus irrigation) = 11 inches

¹Trial conducted at the Arkansas Valley Research Center; seeded 5/14 and harvested 9/24.

²Yields corrected to 13% seed moisture.

³Rating scale 1-10, with 1 = no shatter and 10 = completely shattered.

⁴LSD_(0.30) is more useful for producers using these results to select a variety but some seed company collaborators wish to use LSD_(0.05).

Site Information

Plot Size: 7.5' x 32' with 30" row spacing

Seeding Rate: 130,000 seeds/ac

Herbicide: Dual Magnum/Round-up

Comments: There was good soil moisture in the seedbed (top 12 inches) at planting. The soybean plants emerged before the first irrigation, i.e., in less than a week.

There was a severe woolly bear caterpillar infestation, which started in early August and resulted in complete defoliation five to six weeks later which significantly reduced yields.

Table 7. 2007 Limited Irrigated* Medium Maturity Soybean Variety Performance at Rocky Ford¹.

| Hybrid | Yield ² | Moisture | Test Weight | Shattering ³ |
|------------------------------------|--------------------|------------|-------------|-------------------------|
| | bu/ac | % | lb/bu | (1-10) |
| Dyna-Gro 36F22 | 44.9 | 9.1 | 57.4 | 0.7 |
| Dyna-Gro 37Y21 | 43.5 | 10.0 | 57.8 | 0.8 |
| Dyna-Gro 35F25 | 41.4 | 8.9 | 58.8 | 2.8 |
| Dyna-Gro 31D20 | 40.9 | 9.5 | 57.7 | 0.7 |
| Dyna-Gro 36C28 | 38.2 | 9.7 | 58.4 | 0.7 |
| Dyna-Gro 37T26 | 37.3 | 9.6 | 58.5 | 1.5 |
| Dyna-Gro 33D27 | 36.5 | 9.0 | 58.3 | 0.8 |
| Average | 40.4 | 9.4 | 58.1 | 1.1 |
| ⁴ LSD _(0.30) | 4.2 | 0.6 | 0.6 | |
| ⁴ LSD _(0.05) | 8.4 | 1.2 | 1.2 | |

*Total water received (precipitation plus irrigation) = 11 inches

¹Trial conducted at the Arkansas Valley Research Center; seeded 5/14 and harvested 9/24.

²Yields corrected to 13% seed moisture.

³Rating scale 1-10, with 1 = no shatter and 10 = completely shattered.

⁴LSD_(0.30) is more useful for producers using these results to select a variety but some seed company collaborators wish to use LSD_(0.05).

Site Information

Plot Size: 7.5' x 32' with 30" row spacing

Seeding Rate: 130,000 seeds/ac

Herbicide: Dual Magnum/Round-up

Comments: There was good soil moisture in the seedbed (top 12 inches) at planting. The soybean plants emerged before the first irrigation, i.e., in less than one week.

There was a severe woolly bear caterpillar infestation, which started in early August and resulted in complete defoliation five to six weeks later which significantly reduced yields.

Table 8. 2007 Irrigated Soybean Variety Performance Trial at Stratton¹.

| Hybrid | Yield | Moisture | Test Weight | Plant Height |
|--------------------|-------------|------------|-------------|--------------|
| | bu/ac | % | lb/bu | inches |
| Asgrow DKB22-52 | 73.4 | 8.7 | 58.4 | 26 |
| Asgrow AG2802 | 71.9 | 9.0 | 57.3 | 37 |
| Asgrow AG2703 | 71.5 | 8.4 | 57.5 | 35 |
| Asgrow DKB26-53 | 71.0 | 9.0 | 59.3 | 31 |
| Check ² | 70.6 | 8.7 | 57.5 | 36 |
| Asgrow AG3102 | 69.8 | 8.8 | 58.9 | 39 |
| Asgrow DKB24-52 | 67.5 | 8.4 | 57.8 | 34 |
| Average | 70.8 | 8.7 | 58.0 | 34 |

¹Trial conducted by Ron Meyer and Tim Stahlecker on the Jerry and Lester Hasart farm; seeded 05/22 and harvested 09/28/07.

²The Check is Asgrow AG3006.

Site Information

Plot Size: 25' wide, lengths ranging from 1244' to 1283'

Seeding Rate: 245,000

Previous Crop: corn

Irrigation: sprinkler

Soil Type: Silt loam

Fertilization: 26-0-0

Herbicide: Roundup Weathermax/Select

Insecticide: none

2006 COLORADO SOYBEAN PERFORMANCE TRIALS

Table 1. 2006 Irrigated trial of soybean varieties in row planting at Yuma¹.

| Hybrid | Yield bu/ac | Moisture % | Test | Plant | Lodge ² 1-10 | Shatter ³ 1-10 |
|-----------------------|----------------|---------------|-----------------|--------------|----------------------------|------------------------------|
| | | | Weight lb/bu | Height in | | |
| NK Brand S28-G1 | 99.7 | 7.0 | 57.0 | 33.5 | 1.5 | 1.0 |
| Dyna-Gro 37T26 | 98.1 | 6.7 | 57.6 | 40.0 | 1.5 | 1.0 |
| NK Brand S27-L4 | 96.5 | 6.5 | 56.7 | 36.0 | 1.0 | 1.0 |
| Dyna-Gro 36D24 | 94.9 | 6.4 | 57.6 | 36.5 | 1.3 | 1.0 |
| Dyna-Gro 39J25 | 93.7 | 7.4 | 56.4 | 31.0 | 1.8 | 1.0 |
| Dyna-Gro 32C25 | 92.8 | 6.2 | 56.3 | 35.5 | 1.0 | 1.0 |
| NK Brand S27-T7 | 89.6 | 6.6 | 57.4 | 33.5 | 1.0 | 1.0 |
| Dyna-Gro 33X19 | 85.7 | 6.3 | 56.9 | 32.0 | 1.0 | 1.0 |
| Dyna-Gro 35C23 | 85.0 | 6.2 | 57.7 | 36.8 | 1.5 | 1.0 |
| Average | 92.9 | 6.6 | 57.1 | 35.0 | 1.3 | 1.0 |
| LSD _(0.30) | 5.7 | | | | | |

¹Trial conducted on the Bob Taylor farm; seeded 5/15 and harvested 10/2.

²Rating scale 1-10, with 1 = no lodging and 10 = completely lodged.

³Rating scale 1-10, with 1 = no shatter and 10 = completely shattered.

*Good growing conditions and excellent weed control.

Table 2. 2-yr average soybean variety performance in row planting at Yuma in 2005-06.

| Hybrid | Yield bu/ac | Grain | Test |
|-----------------|----------------|---------------|-----------------|
| | | Moisture % | Weight lb/bu |
| NK Brand S27-T7 | 79.7 | 7.1 | 57.0 |
| NK Brand S28-G1 | 79.4 | 7.4 | 56.8 |
| Average | 79.5 | 7.3 | 56.9 |

Table 3. 2006 Irrigated trial of soybean varieties in solid planting at Yuma¹.

| Hybrid | Yield bu/ac | Moisture % | Test | Plant | Lodge ² 1-10 | Shatter ³ 1-10 |
|-----------------------|----------------|---------------|-----------------|--------------|----------------------------|------------------------------|
| | | | Weight lb/bu | Height in | | |
| NK Brand S27-L4 | 80.3 | 8.6 | 57.3 | 34 | 1.0 | 1.0 |
| NK Brand S27-T7 | 79.8 | 8.8 | 57.8 | 32 | 2.0 | 1.0 |
| NK Brand S28-G1 | 78.0 | 9.4 | 57.3 | 37 | 2.3 | 1.0 |
| Dyna-Gro 39J25 | 68.1 | 9.3 | 57.1 | 34 | 2.8 | 1.0 |
| Average | 76.6 | 9.0 | 57.4 | 34 | 2.0 | 1.0 |
| LSD _(0.30) | 6.1 | | | | | |

¹Trial conducted on the Bob Taylor farm; seeded 5/15 and harvested 10/2.

²Rating scale 1-10, with 1 = no lodging and 10 = completely lodged.

³Rating scale 1-10, with 1 = no shatter and 10 = completely shattered.

*Good growing conditions and excellent weed control.

Table 4. 2-yr average soybean variety performance in solid planting at Yuma in 2005-06.

| Hybrid | Yield bu/ac | Grain Test | |
|-----------------|----------------|---------------|-----------------|
| | | Moisture % | Weight lb/bu |
| NK Brand S27-T7 | 74.8 | 8.2 | 57.3 |
| NK Brand S28-G1 | 68.5 | 8.6 | 56.9 |
| Average | 71.7 | 8.4 | 57.1 |

Site Information

Plot Size: row planting trial 7.5' x 31' with 7.5 inch row spacing; solid planting trial 5' x 31'; conventional till

Experimental Design: randomized complete block

Seeding Rate: approximately 165,000 seeds/acre for row trial and 198,000 seeds/acre for solid trial.

Previous Crop: corn

Irrigation: sprinkler

Soil Type: Richfield silt loam

Fertilization: 35 lbs N acre⁻¹

Herbicide: Round-up

2005 COLORADO SOYBEAN PERFORMANCE TRIALS

Differential soybean variety response to solid planting or row planting in the 2005 trial

A combined analysis of planting system and variety response revealed a significant interaction between these two factors. This means that some varieties were ranked higher in one planting system and ranked differently in the other system and that variety performance is affected by the planting system. See the results below by planting system. However, the variety NK Brand S27-T7 was the highest yielding variety in both planting systems, albeit not significantly higher yielding than DEKALB DKB26-53 in the solid planting system, and not significantly higher yielding than NK Brand S29-C9 in the row planting system. The two planting systems were not significantly different from one another in terms of yield.

Table 1. Irrigated trial of soybean varieties in solid planting at Yuma¹.

| Hybrid | Yield | Moisture | Test | Plant |
|-----------------------|-------------|------------|-------------|-----------|
| | | | Weight | Height |
| | bu/ac | % | lb/bu | in |
| NK Brand S27-T7 | 69.7 | 7.7 | 56.7 | 27 |
| DEKALB DKB26-53 | 62.2 | 7.8 | 56.4 | 31 |
| NK Brand S28-G1 | 59.1 | 7.9 | 56.5 | 29 |
| ASGROW AG3005 | 51.2 | 8.2 | 56.9 | 32 |
| DEKALB DKB29-51 | 50.3 | 7.7 | 56.2 | 32 |
| Garst 2018 (RR) | 50.2 | 7.8 | 56.9 | 29 |
| Garst 2677 (RR) | 48.7 | 7.6 | 56.0 | 28 |
| ASGROW AG2403 | 46.0 | 7.6 | 55.7 | 26 |
| NK Brand S28-W2 | 45.6 | 8.0 | 56.8 | 28 |
| NK Brand S29-C9 | 32.8 | 7.8 | 56.2 | 33 |
| Average | 51.6 | 7.8 | 56.4 | 29 |
| LSD _(0.30) | 9.5 | | | |

¹Trial conducted on the Bob Taylor farm; seeded 5/23 and harvested 10/03/05.

*No shatter.

**Good growing conditions.

Table 2. Irrigated trial of soybean varieties in row planting at Yuma¹.

| Hybrid | Yield | Moisture | Test | Plant | Shatter |
|------------------------|-------------|------------|-------------|-----------|------------|
| | | | Weight | Height | |
| | bu/ac | % | lb/bu | in | % |
| NK Brand S27-T7 | 58.2 | 7.7 | 55.9 | 31 | 0.0 |
| NK Brand S29-C9 | 57.7 | 7.8 | 56.0 | 38 | 0.7 |
| NK Brand S28-W2 | 51.1 | 7.7 | 56.6 | 32 | 0.3 |
| NK Brand S28-G1 | 50.6 | 7.8 | 56.5 | 32 | 0.0 |
| Myconate - Non-treated | 50.4 | 7.6 | 53.7 | 29 | 0.3 |
| Garst 2018 (RR) | 49.9 | 7.8 | 56.6 | 29 | 0.0 |
| Myconate - Treated | 47.8 | 7.7 | 55.6 | 31 | 0.0 |
| Garst 2677 (RR) | 40.6 | 7.9 | 54.7 | 31 | 0.0 |
| Average | 50.8 | 7.8 | 55.7 | 32 | 0.2 |
| LSD _(0.30) | 4.1 | | | | |

¹Trial conducted on the Bob Taylor farm; seeded 5/23 and harvested 10/03/05.

*Good growing conditions.

2003 COLORADO SOYBEAN PERFORMANCE TRIALS

2003 was our third and best year of testing soybean varieties at Yuma. The 2001 trial was severely compromised by hail. Our second attempt at soybean variety testing at Yuma was more successful, without hail and with vigorous vegetative growth, but yields were depressed by high temperatures and mediocre seed set. This sprinkler-irrigated trial included only Roundup Ready varieties. Yuma has a relatively long growing season (average 2615 corn growing degree days) and appropriate for Group 2 maturity varieties.

Rocky Ford, site of soybean variety trials for several years, has a longer growing season (2837 corn growing degree days) and can produce late Group 3 or early Group 4 maturity soybeans. We are extremely pleased with high yields in 2003 at Yuma and the Arkansas Valley Research Center at Rocky Ford. The Rocky Ford trial was furrow irrigated and both conventional and Roundup Ready varieties were included where conventional herbicides were used. Plots in both trials consisted of four rows, each 36 ft long. Yields are expressed at 13% grain moisture as bu/ac (60 lbs per bushel).

Table 1. Irrigated soybean variety performance trial at Rocky Ford¹.

| Variety | Yield | Moisture | Test Weight | Plant Height | Leaf Drop ² |
|-----------------------|-----------|------------|-------------|--------------|------------------------|
| | bu/ac | % | lb/bu | in | date |
| DG 37R39 | 66 | 7.1 | 55.7 | 33 | 259 |
| DG 34P38 | 63 | 7.0 | 56.1 | 31 | 258 |
| Triumph TR3752 (RR) | 62 | 7.0 | 56.0 | 36 | 257 |
| Garst 3824 RR/N | 61 | 7.0 | 55.6 | 35 | 258 |
| DG 3399 + RR | 61 | 6.9 | 55.2 | 34 | 260 |
| Garst 3135 (RR) | 57 | 7.0 | 55.8 | 30 | 252 |
| Average | 62 | 7.0 | 55.7 | 33 | 257 |
| LSD _(0.30) | 4 | | | | |

¹Trial conducted at the Arkansas Valley Research Center; seeded 5/13 and harvested 9/29.

²Julian Date - 50% leaf drop.

Rocky Ford Site Information

Soil Type: silty, clay loam

Previous Crop: corn

Fertilization: 11 lbs N acre⁻¹; 52 lbs P₂O₅ acre⁻¹

Herbicide: Dual II Magnum, Gramoxone Extra, Basagran, Blazer, Poast Crop Oil

Irrigation: furrow

Table 2. Irrigated soybean variety performance trial at Yuma¹.

| Variety | Yield | Moisture | Test | Plant | Lodging ² |
|-----------------------|-----------|-------------|-------------|-----------|----------------------|
| | | | Weight | Height | |
| | bu/ac | % | lb/bu | in | rating |
| ASGROW AG2403 | 69 | 9.0 | 55.0 | 31 | 1 |
| DEKALB DKB25-51 | 66 | 10.1 | 55.0 | 38 | 1 |
| DG 31G30 | 64 | 11.1 | 55.4 | 32 | 1 |
| Garst 2018 (RR) | 61 | 9.9 | 55.8 | 35 | 1 |
| Triumph TRX2J28 (RR) | 61 | 9.7 | 55.5 | 39 | 1 |
| DEKALB DKB28-52 | 61 | 10.8 | 55.1 | 36 | 1 |
| ASGROW AG2703 | 60 | 11.1 | 55.6 | 38 | 1 |
| Garst 2677 (RR) | 60 | 9.6 | 56.6 | 33 | 1 |
| DG 38K28 | 59 | 10.2 | 55.8 | 38 | 2 |
| Farmer Check* | 55 | 9.7 | 56.6 | 37 | 1 |
| DG 35R27 | 52 | 11.7 | 56.0 | 34 | 1 |
| ASGROW AG3005 | 50 | 12.4 | 54.6 | 39 | 1 |
| Average | 60 | 10.4 | 55.6 | 36 | 1 |
| LSD _(0.30) | 7 | | | | |

¹Trial conducted on the Max Olsen farm; seeded 5/21 and harvested 10/02.

²Lodging rating scale 1-5, 1 = Best.

*Farmer check was NK 528-W2.

Yuma Site Information

Soil Type: ascalon fine sandy loam

Previous Crop: sunflowers

Herbicide: Roundup

Irrigation: sprinkler

2002 COLORADO SOYBEAN PERFORMANCE TRIALS

2002 was the second year of testing soybean varieties at Yuma. The 2001 trial was severely compromised by hail. Our second attempt at soybean variety testing at Yuma was more successful, without hail and with vigorous vegetative growth, but yields were depressed by high temperatures and mediocre seed set. This sprinkler irrigated trial included only Roundup Ready varieties. Yuma has a relatively long growing season (average 2615 corn growing degree days) and appropriate for Group 2 maturity varieties.

Rocky Ford, site of soybean variety trials for several years, has a longer growing season (2837 corn growing degree days) and can produce late Group 3 or early Group 4 maturity soybeans. We are extremely pleased with the high yields in this trial at the Arkansas Valley Research Center at Rocky Ford. This might have been a record high yield for soybeans in Colorado (up to 2002) and gives a rare glance at variety performance under high yield conditions. The trial was furrow irrigated and both conventional and Roundup Ready varieties were included where conventional herbicides were used. Plots in both trials consisted of four rows, each 36 ft long. Yields are expressed at 13% grain moisture as bu/ac (60 lbs per bushel).

Table 1. Irrigated soybean variety performance trial at Rocky Ford¹.

| Variety ² | Test | | Plant | Leaf | Maturity | |
|-----------------------|-----------|------------|-------------|-----------|------------|-------------------|
| | Yield | Moisture | Weight | Height | | Drop ³ |
| | bu/ac | % | lb/bu | in | date | rating |
| DG 3399+RR | 89 | 8.5 | 54.4 | 39 | 272 | 3.3 |
| Syngenta S39-Q4 | 88 | 10.8 | 53.5 | 39 | 276 | 3.9 |
| Garst 3135(RR) | 84 | 8.4 | 55.6 | 32 | 262 | 3.1 |
| Triumph TR3752RR | 81 | 8.8 | 55.6 | 41 | 271 | 3.7 |
| Pioneer brand 93B85 | 80 | 8.6 | 55.1 | 36 | 267 | 3.8 |
| DG 3390 N RR | 78 | 8.7 | 54.9 | 38 | 272 | 3.3 |
| US Seeds US S4002(RR) | 77 | 8.7 | 55.2 | 36 | 273 | 4.0 |
| Pioneer brand 93B68 | 76 | 8.5 | 56.6 | 33 | 264 | 3.6 |
| Pioneer brand 93B72 | 75 | 9.1 | 55.0 | 37 | 266 | 3.7 |
| US Seeds US S3902(RR) | 74 | 9.9 | 55.1 | 39 | 273 | 3.9 |
| AG3701 + Myconate + | 72 | 8.6 | 56.3 | 34 | 268 | 3.7 |
| DG 3388RR | 69 | 8.6 | 55.3 | 41 | 271 | 3.3 |
| Garst 355(RR) | 69 | 8.4 | 56.6 | 35 | 263 | 3.5 |
| AG3701 + Myconate - | 66 | 8.7 | 56.3 | 38 | 269 | 3.7 |
| Garst 3083(RR) | 63 | 8.7 | 55.4 | 30 | 260 | 3.0 |
| Average | 76 | 8.9 | 55.4 | 37 | 269 | |
| LSD _(0.30) | 5 | | | | | |

¹Trial conducted on the Arkansas Valley Research Center; seeded 5/16 and harvested 10/7.

²Myconate® is a new agricultural product developed by researchers at Michigan State University. Myconate® is a signal compound put out by plant roots in times of stress that encourages beneficial fungus (mycorrhizae) to colonize them. The fungus extends the plants root system and helps it take up nutrients and water, and fight off disease. Previous research has shown significant yield increases on a number of crops in a variety of locations. This simple compound is non-toxic, is quickly broken down in the soil, and is effective in very small quantities. It is water soluble and easy to apply to seeds or soil. Myconate® is a trademark product of VAMTech, L.L.C., commercially available for enhancing mycorrhizal colonization.

³Julian date.

Rocky Ford Site Information

Soil Type: silty, clay loam

Previous Crop: corn

Fertilization: 16 lbs P₂O₅ acre⁻¹; 75 lbs K₂O acre⁻¹

Herbicide: Basagran, Blazer, Poast

Irrigation: furrow

Table 2. Irrigated soybean variety performance trial at Yuma¹.

| Variety | Test | | | Plant | | Maturity rating |
|------------------------|-----------|------------|-------------|-----------|---------------------|-----------------|
| | Yield | Moisture | Weight | Height | Shatter | |
| | bu/ac | % | lb/bu | in | rating ² | rating |
| ASGROW AG3003 | 47 | 8.0 | 55.6 | 33 | 1.0 | 3.0 |
| DGX 432 RR | 43 | 7.7 | 53.4 | 34 | 1.0 | 4.3 |
| ASGROW AG2703 | 42 | 8.2 | 53.8 | 34 | 1.0 | 2.7 |
| DEKALB DKB26-51 | 42 | 8.2 | 56.4 | 32 | 1.0 | 2.6 |
| DG 3270 RR | 42 | 8.6 | 56.1 | 39 | 1.0 | 3.2 |
| DG 3287 RR | 41 | 7.7 | 56.2 | 31 | 1.0 | 3.2 |
| Syngenta S29-C9 | 41 | 7.8 | 54.1 | 36 | 1.0 | 2.9 |
| DEKALB DKB24-51 | 41 | 7.8 | 56.6 | 28 | 1.0 | 2.4 |
| US Seeds US S2503(RR) | 40 | 7.6 | 55.4 | 32 | 1.7 | 2.5 |
| Garst 2677 (RR) | 39 | 7.5 | 56.6 | 31 | 1.0 | 2.6 |
| US Seeds US S2703(RR) | 37 | 8.3 | 53.8 | 35 | 1.0 | 2.7 |
| Pioneer 91B91+Myconate | 37 | 7.8 | 51.3 | 30 | 1.0 | 1.7 |
| Garst 2332 (RR) | 33 | 7.7 | 56.9 | 29 | 1.0 | 2.3 |
| DEKALB DKB23-51 | 33 | 7.6 | 57.6 | 30 | 1.0 | 2.3 |
| Pioneer 91B91+Myconate | 30 | 8.0 | 55.4 | 28 | 1.0 | 1.7 |
| Garst 2603(RR) | 30 | 7.9 | 51.5 | 33 | 1.0 | 2.6 |
| Average | 39 | 7.9 | 55.0 | 32 | 1.0 | |
| LSD _(0.30) | 5 | | | | | |

¹Trial conducted on the Rod Hahn farm; seeded 5/14 and harvested 10/1.

² Rating scale 0-10.

*Myconate® is a trademark product of VAMTech, L.L.C., for enhancing mycorrhizal colonization

Yuma Site Information

Soil Type: Manter, loamy sand

Previous Crop: corn

Fertilization: 9 lbs N acre⁻¹; 23 lbs P₂O₅ acre⁻¹; 6 lbs K₂O acre⁻¹; 6 lbs S; .5 lbs Zn

Herbicide: Touchdown

Irrigation: sprinkler

2001 COLORADO SOYBEAN PERFORMANCE TRIALS

2001 was the first year of testing soybean varieties at Yuma. This sprinkler irrigated trial on soils with pH in the range of 7.0 – 7.4 included only Roundup Ready varieties. Yuma has a relatively long growing season (average 2615 corn growing degree days) and is appropriate for Group 2 maturity varieties. Our first attempt at soybean variety testing was marred by a severe hail storm during the first week of September. Our collaborating grower thinks yields were reduced by 40% due to the storm.

Rocky Ford, site of soybean variety trials for several years, has a longer growing season (2837 corn growing degree days) and can produce late Group 3 or early Group 4 maturity soybeans. The trial was furrow irrigated with a soil pH of 7.8. Both conventional and Roundup Ready varieties were included, and conventional herbicides were used. Plots in both trials consisted of four rows, each 36 ft long. Yields are expressed at 13% grain moisture as bu/ac with 60 lbs of soybeans in one bushel.

Table 1. Irrigated soybean variety performance trial at Rocky Ford¹.

| Variety ² | Yield | Moisture | Plant Height | Leaf Drop |
|-----------------------|-------------|------------|--------------|-------------------|
| | bu/ac | % | in | date ³ |
| DG 3399(RR) | 72.9 | 7.2 | 35 | 275 |
| Pioneer brand 93B85 | 72.1 | 7.0 | 33 | 275 |
| Garst 355(RR) | 70.8 | 6.8 | 36 | 273 |
| Pioneer brand 93B72 | 69.9 | 6.9 | 32 | 274 |
| Pioneer brand 93B53 | 69.1 | 6.9 | 34 | 273 |
| Garst 437(RR/N) | 68.8 | 7.7 | 38 | 277 |
| DG 3388(RR) | 68.5 | 7.2 | 37 | 0* |
| Asgrow AG3903 | 67.9 | 7.4 | 35 | 275 |
| Asgrow AG3902 | 67.8 | 7.5 | 36 | 0* |
| Garst 381(RR/STS) | 67.6 | 6.9 | 35 | 273 |
| DEKALB DKB40-51 | 61.8 | 7.6 | 37 | 277 |
| Average | 68.8 | 7.2 | 35 | 225 |
| LSD _(0.30) | 4.4 | | | |

¹Trial conducted on the Arkansas Valley Research Center; seeded 6/4 and harvested 10/10. No shatter.

²Abbreviations used with soybean variety traits: RR = Roundup Ready, RR/N = Not Roundup Ready, STS = Sulfonyleurea Tolerance

³Julian date.

*Frosted before leaf drop.

Table 2. Irrigated soybean variety performance trial at Yuma¹.

| Variety ² | Yield | Moisture | Plant | |
|---------------------------|-------------|-------------|-----------|---------------------|
| | | | Height | Shatter |
| | bu/ac | % | in | rating ³ |
| DG 3270(RR) | 47.6 | 13.4 | 34 | 2.3 |
| Syngenta S29-C9 | 45.7 | 11.2 | 31 | 2.0 |
| Prairie Brand PB-2717(RR) | 42.8 | 11.8 | 34 | 2.0 |
| Asgrow AG2703 | 41.2 | 13.5 | 33 | 2.0 |
| Asgrow AG2402 | 36.6 | 12.7 | 36 | 3.0 |
| Syngenta S24-K2 | 35.0 | 14.5 | 36 | 2.7 |
| Garst 198(RR) | 32.6 | 12.7 | 30 | 3.0 |
| Prairie Brand PB-2131(RR) | 32.5 | 12.6 | 34 | 3.0 |
| DG 3263(RR) | 31.6 | 12.9 | 37 | 2.3 |
| DEKALB DKB26-51 | 30.8 | 11.5 | 31 | 2.3 |
| Garst 2547(RR) | 29.9 | 12.4 | 32 | 3.3 |
| DEKALB DKB23-51 | 28.5 | 13.0 | 33 | 3.0 |
| Asgrow AG2302 | 28.0 | 11.0 | 33 | 3.0 |
| Garst 2603(RR) | 25.0 | 13.5 | 34 | 3.0 |
| Garst 2112(RR/N) | 24.9 | 12.3 | 29 | 3.0 |
| Average | 34.2 | 12.6 | 33 | 2.7 |
| LSD _(0.30) | 4.4 | | | |

¹Trial conducted on the Joe Harper farm; seeded 6/6 and harvested 9/25.

²Abbreviations used with soybean variety traits: RR = Roundup Ready, RR/N = Not Roundup Ready, STS = Sulfonylurea Tolerance

³Rating scale 0-10, with 0 = no shattering and 10 = 100% shattering. Shatter was due to hail damage on 9/15/01.

2000 COLORADO SOYBEAN PERFORMANCE TRIALS

Table 1. Irrigated soybean variety performance trial at Rocky Ford¹.

| Variety | Yield | Moisture | Test Average | Test Weight |
|-----------------------|-------------|----------|--------------|-------------|
| | bu/ac | % | % | lb/bu |
| DKB 38-51 | 74.2 | 8.3 | 112 | 56.0 |
| 346 RR | 72.4 | 8.5 | 110 | 56.2 |
| 5404 | 71.3 | 8.4 | 108 | 55.8 |
| 93B51 | 71.2 | 8.4 | 108 | 56.1 |
| 5383 | 70.8 | 8.3 | 107 | 56.0 |
| 5370 RR | 67.8 | 8.3 | 103 | 56.2 |
| TR3750 RR | 67.6 | 8.4 | 102 | 56.4 |
| 93B34 | 66.7 | 8.4 | 101 | 56.8 |
| TR3939 RR | 65.7 | 8.7 | 99 | 56.6 |
| CX 391 RR | 65.7 | 9.0 | 99 | 56.4 |
| AG 3701 | 65.4 | 8.3 | 99 | 57.0 |
| 5316 RR | 63.6 | 8.5 | 96 | 55.7 |
| AG4101 | 63.4 | 11.8 | 96 | 55.7 |
| TR4319 RR | 61.3 | 14.4 | 93 | 55.6 |
| 429 RR | 60.9 | 8.9 | 92 | 56.9 |
| 94B01 | 58.8 | 8.9 | 89 | 56.5 |
| 9396 | 57.5 | 8.3 | 87 | 56.6 |
| Average | 66.0 | | | |
| LSD _(0.10) | 5.7 | | | |

¹Trial conducted on the Arkansas Valley Research Center; seeded 5/31 and harvested 10/13.

*Yield adjusted to 13% moisture and 60 lbs per bushel.

Site Information

Fertilizer - 50 lbs. P₂O₅/Acre

Soybean inoculants - 15 oz./300 lbs. of seed

Herbicide - Pursuit .0626 lbs. AI/Acre - 6/6, Poast .28 lbs. AI/Acre + Dash - 6/20, Basagran 1 lb. + Blazer .25 lbs. AI/Acre - 6/23

Fungicide - None

Insecticide - None

1999 COLORADO SOYBEAN PERFORMANCE TRIALS

Table 1. Irrigated soybean variety performance trial at Rocky Ford¹.

| Variety | Brand | Yield | Test | Test | Moisture |
|-----------------------|-------------|-------------|---------|--------|----------|
| | | | Average | Weight | |
| | | bu./ac | % | lb/bu | % |
| TR4319RR | Triumph | 63.7 | 119 | 53.5 | 7.7 |
| CX419RR | DeKalb | 59.7 | 111 | 55.5 | 7.7 |
| S39-D9 | NK Novartis | 59.7 | 111 | 55.5 | 7.5 |
| TR 3939RR | Triumph | 59.4 | 111 | 54.1 | 7.6 |
| 9396 | Pioneer | 59.0 | 110 | 55.7 | 7.6 |
| 377RR | Producers | 57.7 | 107 | 55.1 | 7.6 |
| S42-K2 | NK Novartis | 57.3 | 107 | 55.7 | 7.7 |
| 93B34 | Pioneer | 56.9 | 106 | 55.2 | 7.6 |
| 94B01 | Pioneer | 55.9 | 104 | 55.3 | 7.8 |
| 93B51 | Pioneer | 55.1 | 103 | 54.9 | 7.8 |
| 5366NRR | Mycogen | 53.5 | 100 | 54.7 | 7.6 |
| S36-U2 | NK Novartis | 52.6 | 98 | 53.4 | 7.7 |
| 5370RR | Mycogen | 52.2 | 97 | 54.4 | 7.6 |
| TR4339RR | Triumph | 50.7 | 94 | 55.9 | 7.7 |
| J-399 | Mycogen | 49.7 | 93 | 55.4 | 7.5 |
| CX390RR | DeKalb | 42.0 | 78 | 55.6 | 7.7 |
| X8135RR | Producers | 27.5 | 51 | 55.7 | 8.0 |
| Average | | 53.7 | | | |
| LSD _(0.10) | | 8.9 | | | |

¹Trial conducted on the Arkansas Valley Research Center; seeded 5/24 and harvested 10/13.

*Yield adjusted to 13% moisture and 60 lbs per bushel.

Site Information

Fertilizer - 50 lbs. P₂O₅/Acre

Soybean inoculants - 15 oz./300 lbs. of seed

Herbicide - Roundup 1 lb. + Dual II .98 lbs. AI/Acre - preplant

Seed Company Entrants in the Colorado Soybean Performance Trials from 1999-2007

| Entrant | Brand/Hybrid | Address | Telephone |
|-------------------------|-------------------|---|--------------|
| Garst Seed Co. | Garst | 1101 Mansfield Drive, Fort Collins, CO 80525 | 970-222-4719 |
| Dyna-Gro Seeds | Dyna-Gro | 240 22 nd Street, Greeley, CO 80631 | 800-332-4045 |
| Monsanto | DEKALB/Asgrow | 4312 Carol Ave., Cortland, IL 60112 | 815-754-4809 |
| NK Brand Seeds, Inc. | NK Brand/Syngenta | 86852 572 nd Avenue, Box 277, Laurel, NE 68745 | 402-256-9109 |
| Pioneer Hi-Bred Int'l | Pioneer brand | 1616 S. Kentucky, Suite C-150, Amarillo, TX 79102 | 806-356-0160 |
| Plant Health Care, Inc. | Myconate | 440 William Pitt Way, Pittsburgh, PA 15238 | 412-826-5488 |
| Prairie Brand Seed Co. | Prairie Brand | 15 X Avenue, Story City, IA 50248 | 515-733-2101 |
| Roughrider Genetics | RG | 1735 NDSU Research Park Drive, Fargo, ND 58105 | 701-231-8168 |
| UAP-Pueblo | DG | Box 1279, Garden City, KS 67846 | 620-275-6127 |
| United Suppliers, Inc. | US Seeds | PO Box 538, Eldora, IA 50627 | 877-714-4503 |
| VAMTech, L.L.C. | Myconate | 3186 Pine Tree Rd., Unit D, Lansing, MT 48911 | 517-819-9739 |