

Irrigation Water Requirements

Crop Data Summary

Job: Gallup	Crop: Alfalfa, hay, northern
Location: Gallup	County: Mckinley, NM
By: Rhett	Date: 01/25/05
Weather Station: GALLUP FAA AP	Sta No: NM3422
Latitude: 3531 Longitude: 10847	Elevation: 6470 feet above sea level
Computation Method: Blaney Criddle (TR21)	Net irrigation application: 2 inches
Crop Curve: Blaney Criddle Perennial Crop	Estimated carryover moisture used at season:
Begin Growth: 5/1 End Growth: 9/30	Begin: 0.5 inches End: 0.5 inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Requirements inches (2)	Effective Precipitation inches	Net Irrigation Requirements inches (2)		
January	0.00	0.00	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	0.00	0.00	
April	0.00	0.00	0.00	0.00	0.00	0.00	
May	3.44	0.28	2.66	0.38	2.56	0.11	
June	6.84	0.24	6.60	0.33	6.51	0.23	0.25
July	8.37	0.90	7.47	1.23	7.14	0.27	0.30
August	7.15	1.08	6.08	1.47	5.69	0.23	0.25
September	4.38	0.52	3.37	0.71	3.18	0.15	
October	0.00	0.00	0.00	0.00	0.00	0.00	
November	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	30.19	3.02	26.17	4.11	25.08		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moisture used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 7/26/2005

Irrigation Water Requirements

Monthly Crop Water Requirements

Job: **Gallup**

Crop: **Alfalfa, hay, northern**

Location: **Gallup**

Date: **01/25/05**

Computation Method: **Blaney Criddle (TR21)**

Crop Curve: **Blaney Criddle Perennial Crop**

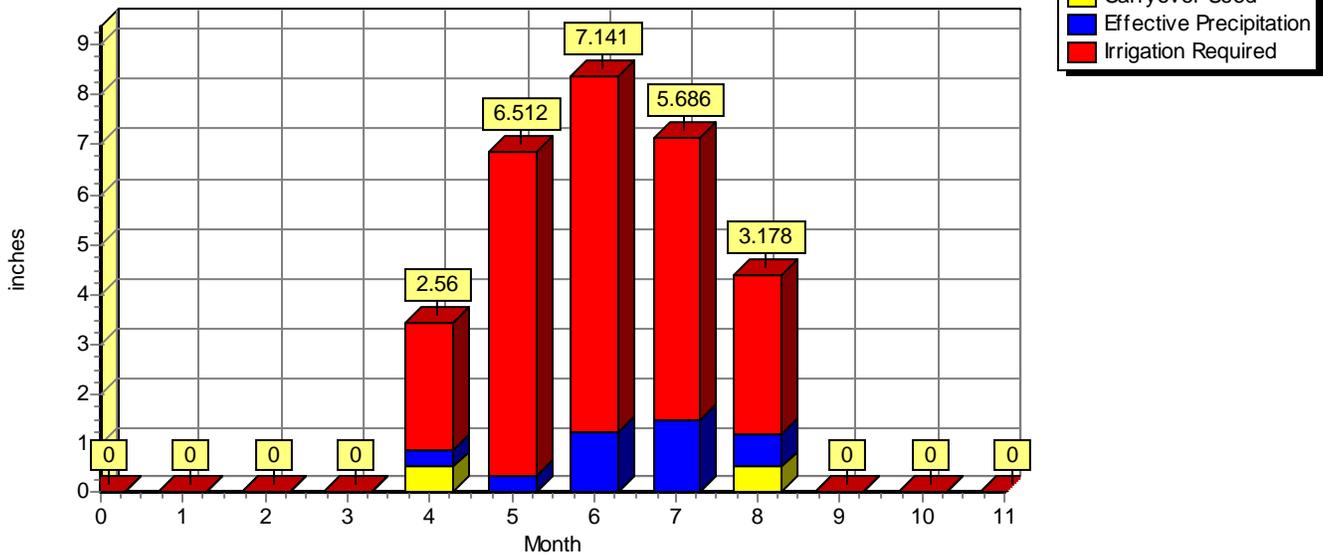
Begin Growth: **5/1** End Growth: **9/30**

Net irrigation application: **2** inches

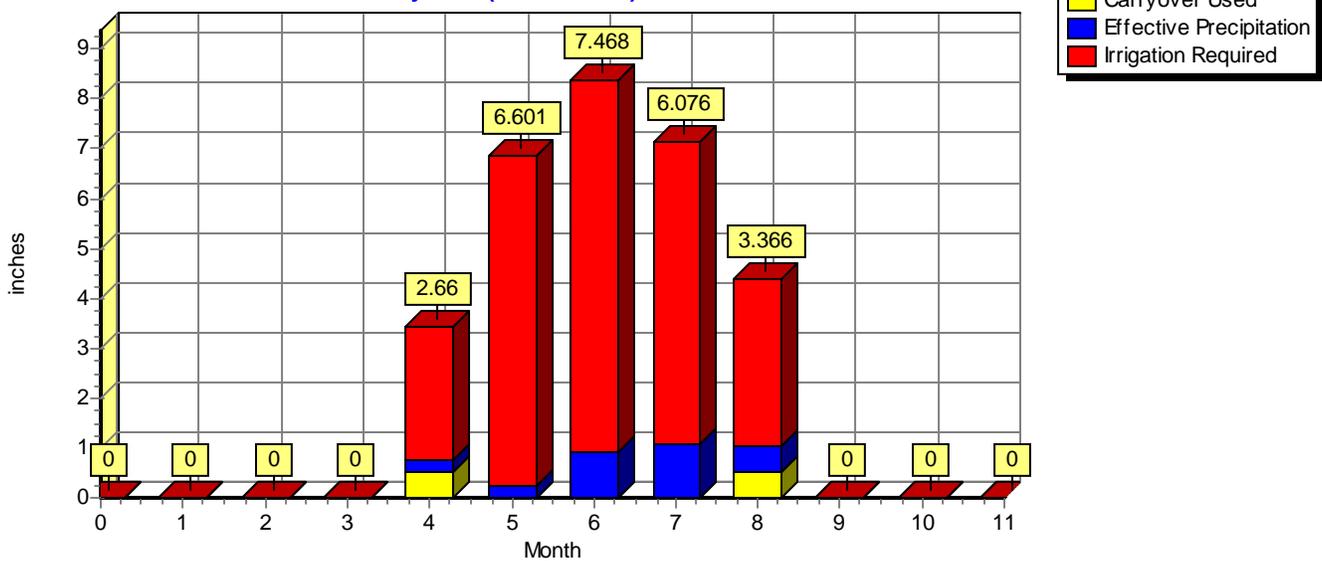
Estimated carryover moisture used at season:

Begin: **0.5** inches End **0.5** inches

Irrigation Water Requirements
Normal Year (50% chance)



Irrigation Water Requirements
Dry Year (80% chance)



Irrigation Water Requirements

Crop Data Summary

Job: Gallup	Crop: Apples, mature w cover
Location: Gallup	County: Mckinley, NM
By: Rhett	Date: 01/25/05
Weather Station: GALLUP FAA AP	Sta No: NM3422
Latitude: 3531 Longitude: 10847	Elevation: 6470 feet above sea level
Computation Method: Blaney Criddle (TR21)	Net irrigation application: 2 inches
Crop Curve: Blaney Criddle Perennial Crop	Estimated carryover moisture used at season:
Begin Growth: 4/1 End Growth: 10/1	Begin: 0.5 inches End: 0.5 inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Requirements inches (2)	Effective Precipitation inches	Net Irrigation Requirements inches (2)		
January	0.00	0.00	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	0.00	0.00	
April	1.82	0.20	1.11	0.28	1.04	0.06	
May	4.46	0.30	4.16	0.41	4.05	0.14	0.16
June	6.84	0.24	6.60	0.33	6.51	0.23	0.25
July	8.37	0.90	7.47	1.23	7.14	0.27	0.30
August	7.15	1.08	6.08	1.47	5.69	0.23	0.25
September	4.53	0.54	3.59	0.73	3.39	0.15	0.16
October	0.11	0.02	0.00	0.02	0.00	0.11	
November	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	33.29	3.28	29.00	4.47	27.82		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moisture used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 7/26/2005

Irrigation Water Requirements

Monthly Crop Water Requirements

Job: **Gallup**

Crop: **Apples, mature w cover**

Location: **Gallup**

Date: **01/25/05**

Computation Method: **Blaney Criddle (TR21)**

Crop Curve: **Blaney Criddle Perennial Crop**

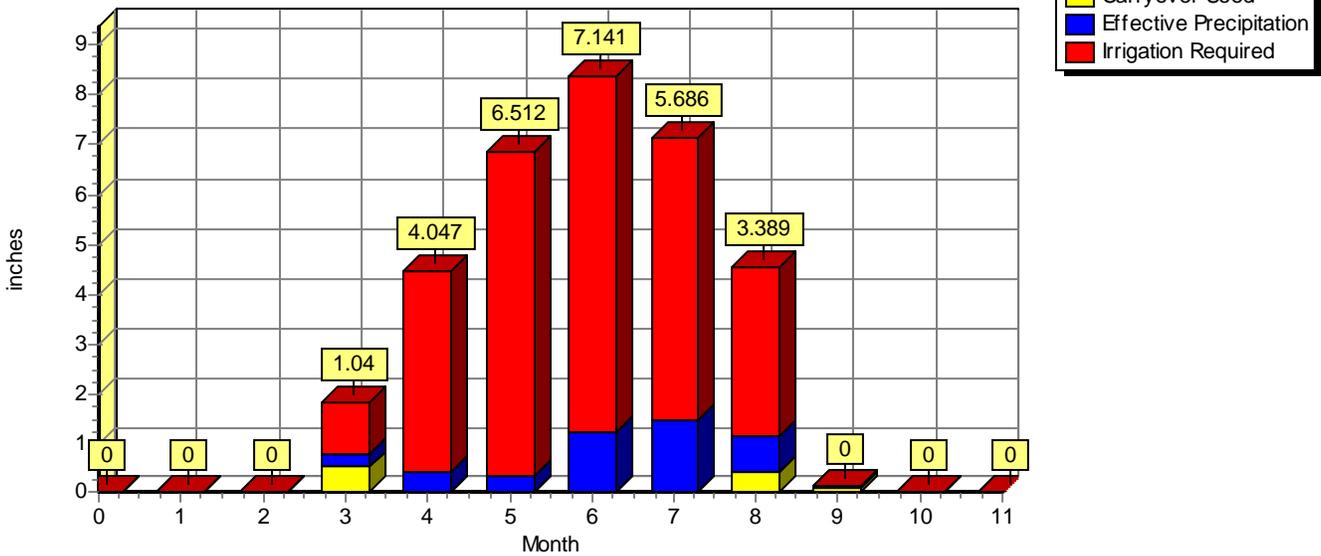
Begin Growth: **4/1** End Growth: **10/1**

Net irrigation application: **2** inches

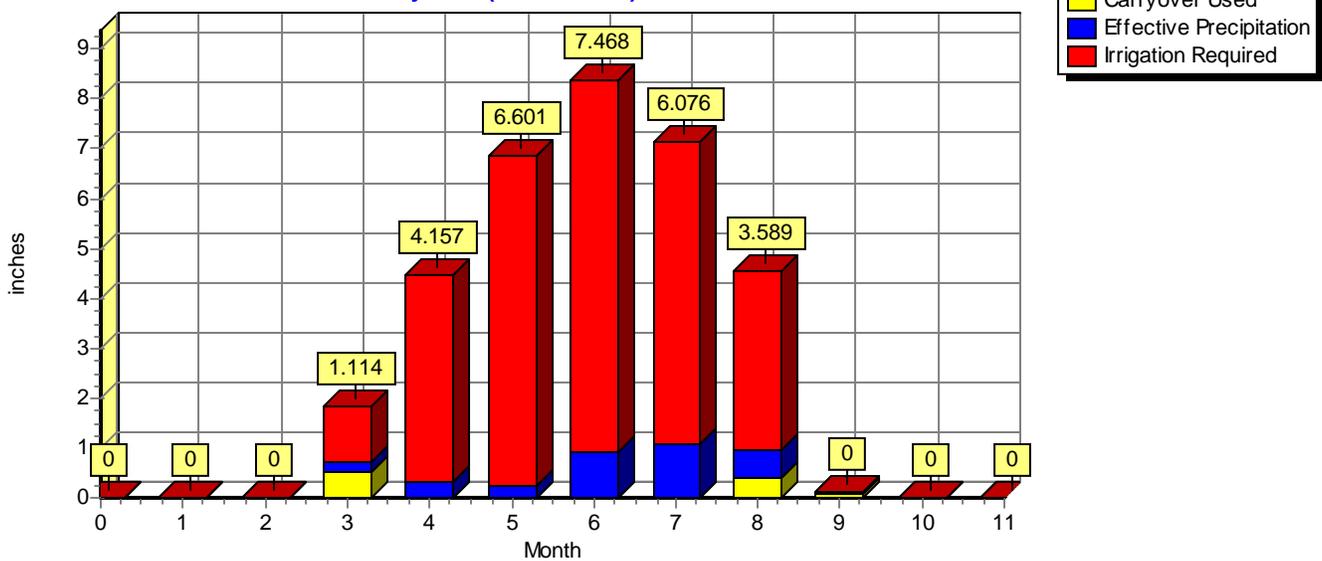
Estimated carryover moisture used at season:

Begin: **0.5** inches End: **0.5** inches

**Irrigation Water Requirements
Normal Year (50% chance)**



**Irrigation Water Requirements
Dry Year (80% chance)**



Irrigation Water Requirements

Crop Data Summary

Job: Gallup	Crop: Apples, mature w/o cover
Location: Gallup	County: Mckinley, NM
By: Rhett	Date: 01/25/05
Weather Station: GALLUP FAA AP	Sta No: NM3422
Latitude: 3531 Longitude: 10847	Elevation: 6470 feet above sea level
Computation Method: Blaney Criddle (TR21)	Net irrigation application: 2 inches
Crop Curve: Blaney Criddle Perennial Crop	Estimated carryover moisture used at season:
Begin Growth: 4/1 End Growth: 10/1	Begin: 0.5 inches End: 0.5 inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Requirements inches (2)	Effective Precipitation inches	Net Irrigation Requirements inches (2)		
January	0.00	0.00	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	0.00	0.00	
April	1.17	0.20	0.47	0.27	0.40	0.04	
May	3.54	0.29	3.25	0.39	3.15	0.11	0.12
June	5.81	0.23	5.58	0.31	5.50	0.19	0.21
July	7.14	0.84	6.29	1.15	5.99	0.23	0.25
August	5.46	0.98	4.48	1.33	4.13	0.18	0.19
September	2.49	0.48	1.54	0.65	1.36	0.08	0.09
October	0.05	0.01	0.00	0.02	0.00	0.05	
November	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	25.65	3.03	21.62	4.13	20.52		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moisture used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 7/26/2005

Irrigation Water Requirements

Monthly Crop Water Requirements

Job: **Gallup**

Crop: **Apples, mature w/o cover**

Location: **Gallup**

Date: **01/25/05**

Computation Method: **Blaney Criddle (TR21)**

Crop Curve: **Blaney Criddle Perennial Crop**

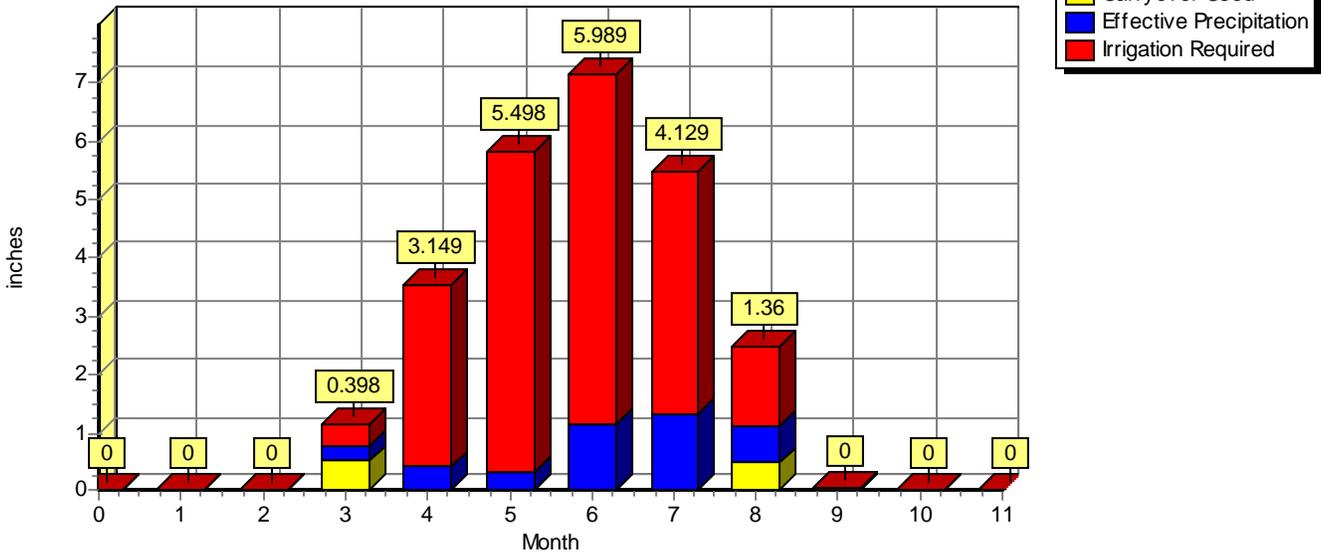
Begin Growth: **4/1** End Growth: **10/1**

Net irrigation application: **2** inches

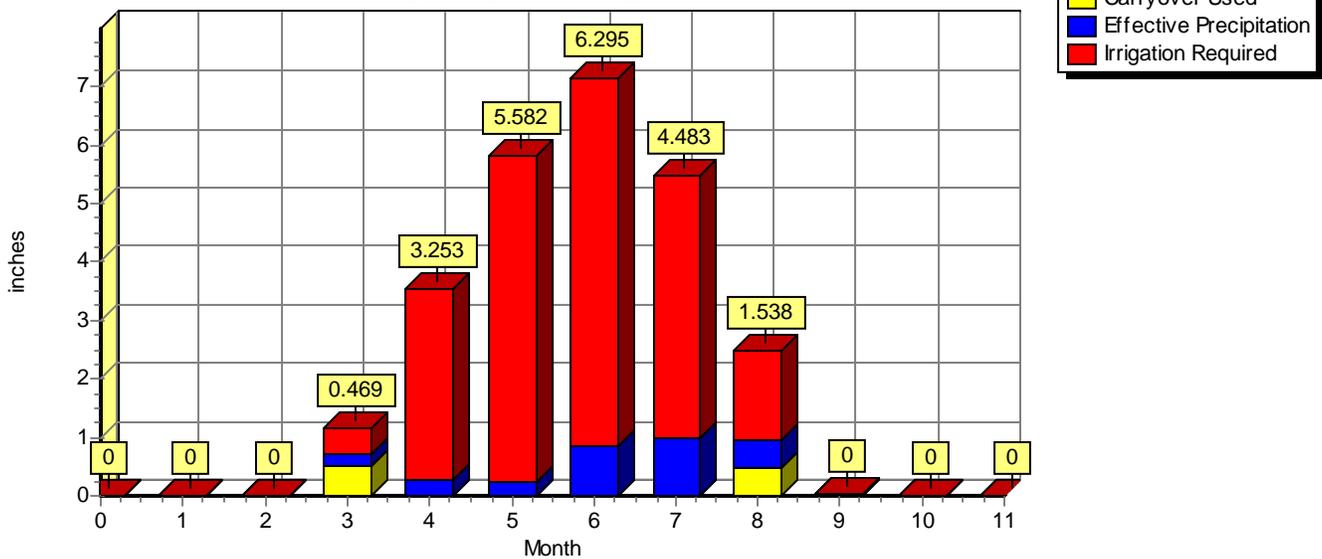
Estimated carryover moisture used at season:

Begin: **0.5** inches End: **0.5** inches

**Irrigation Water Requirements
Normal Year (50% chance)**



**Irrigation Water Requirements
Dry Year (80% chance)**



Irrigation Water Requirements

Crop Data Summary

Job: Gallup	Crop: Corn, sweet
Location: Gallup	County: Mckinley, NM
By: Rhett	Date: 01/25/05
Weather Station: GALLUP FAA AP	Sta No: NM3422
Latitude: 3531 Longitude: 10847	Elevation: 6470 feet above sea level
Computation Method: Blaney Criddle (TR21)	Net irrigation application: 2 inches
Crop Curve: Blaney Criddle Annual Crop	Estimated carryover moisture used at season:
Begin Growth: 5/1 End Growth: 8/30	Begin: 0.5 inches End: 0.5 inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Requirements inches (2)	Effective Precipitation inches	Net Irrigation Requirements inches (2)		
January	0.00	0.00	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	0.00	0.00	
April	0.00	0.00	0.00	0.00	0.00	0.00	
May	1.69	0.25	0.94	0.34	0.85	0.05	
June	5.34	0.22	5.12	0.31	5.04	0.18	0.19
July	8.11	0.89	7.22	1.21	6.90	0.26	0.29
August	6.76	1.03	5.23	1.41	4.86	0.23	
September	0.00	0.00	0.00	0.00	0.00	0.00	
October	0.00	0.00	0.00	0.00	0.00	0.00	
November	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	21.91	2.40	18.51	3.27	17.64		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moisture used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 7/26/2005

Irrigation Water Requirements

Monthly Crop Water Requirements

Job: **Gallup**

Crop: **Corn, sweet**

Location: **Gallup**

Date: **01/25/05**

Computation Method: **Blaney Criddle (TR21)**

Crop Curve: **Blaney Criddle Annual Crop**

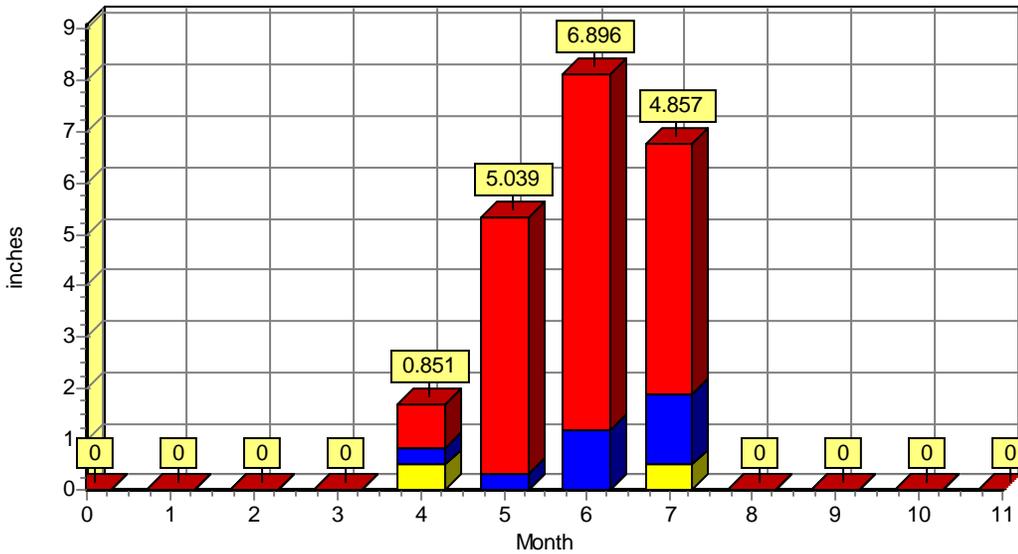
Begin Growth: **5/1** End Growth: **8/30**

Net irrigation application: **2** inches

Estimated carryover moisture used at season:

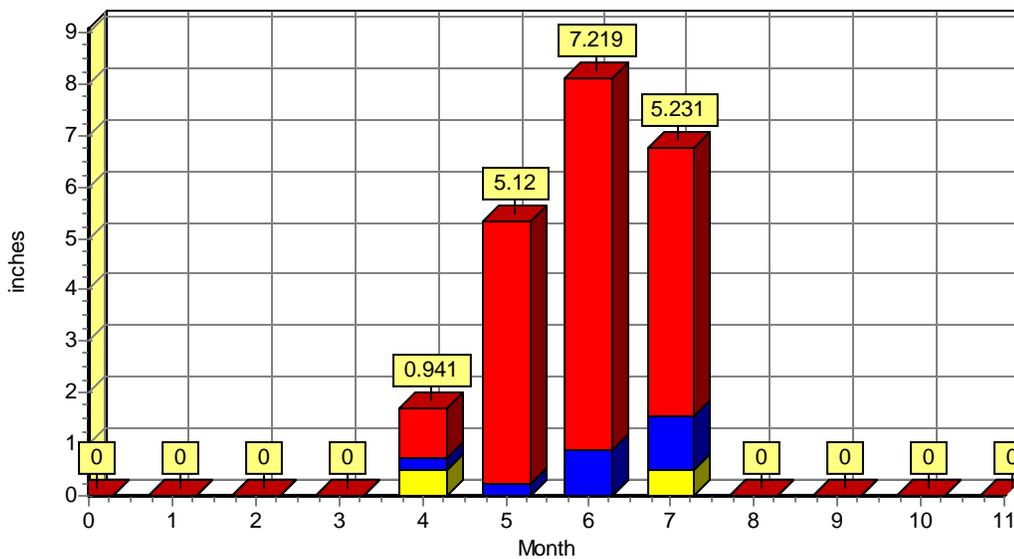
Begin: **0.5** inches End: **0.5** inches

Irrigation Water Requirements
Normal Year (50% chance)



■ Carryover Used
■ Effective Precipitation
■ Irrigation Required

Irrigation Water Requirements
Dry Year (80% chance)



■ Carryover Used
■ Effective Precipitation
■ Irrigation Required

Irrigation Water Requirements

Crop Data Summary

Job: Gallup	Crop: Grain, spring
Location: Gallup	County: Mckinley, NM
By: Rhett	Date: 01/25/05
Weather Station: GALLUP FAA AP	Sta No: NM3422
Latitude: 3531 Longitude: 10847	Elevation: 6470 feet above sea level
Computation Method: Blaney Criddle (TR21)	Net irrigation application: 2 inches
Crop Curve: Blaney Criddle Annual Crop	Estimated carryover moisture used at season:
Begin Growth: 5/1 End Growth: 10/1	Begin: 0.5 inches End: 0.5 inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Requirements inches (2)	Effective Precipitation inches	Net Irrigation Requirements inches (2)		
January	0.00	0.00	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	0.00	0.00	
April	0.00	0.00	0.00	0.00	0.00	0.00	
May	1.52	0.25	0.77	0.34	0.68	0.05	
June	5.74	0.23	5.51	0.31	5.42	0.19	0.21
July	9.61	0.97	8.64	1.32	8.29	0.31	0.34
August	6.74	1.05	5.69	1.43	5.31	0.22	0.24
September	0.00	0.00	0.00	0.00	0.00	0.00	
October	0.03	0.01	0.00	0.02	0.00	0.03	
November	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	23.64	2.51	20.61	3.42	19.70		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moisture used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 7/26/2005

Irrigation Water Requirements

Monthly Crop Water Requirements

Job: **Gallup**

Crop: **Grain, spring**

Location: **Gallup**

Date: **01/25/05**

Computation Method: **Blaney Criddle (TR21)**

Crop Curve: **Blaney Criddle Annual Crop**

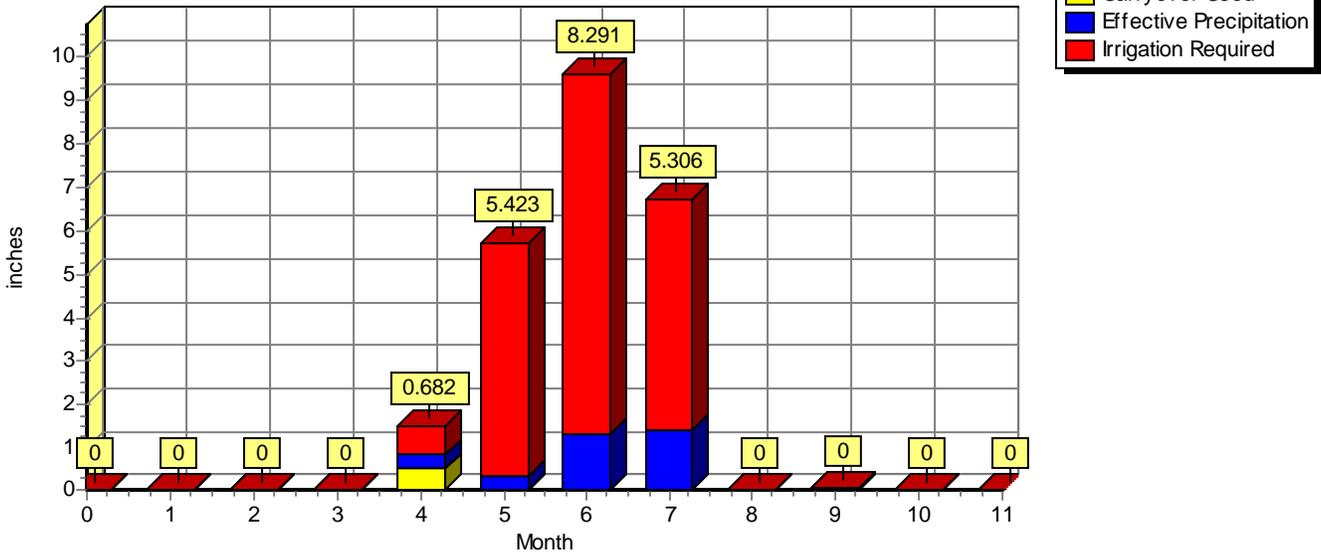
Begin Growth: **5/1** End Growth: **10/1**

Net irrigation application: **2** inches

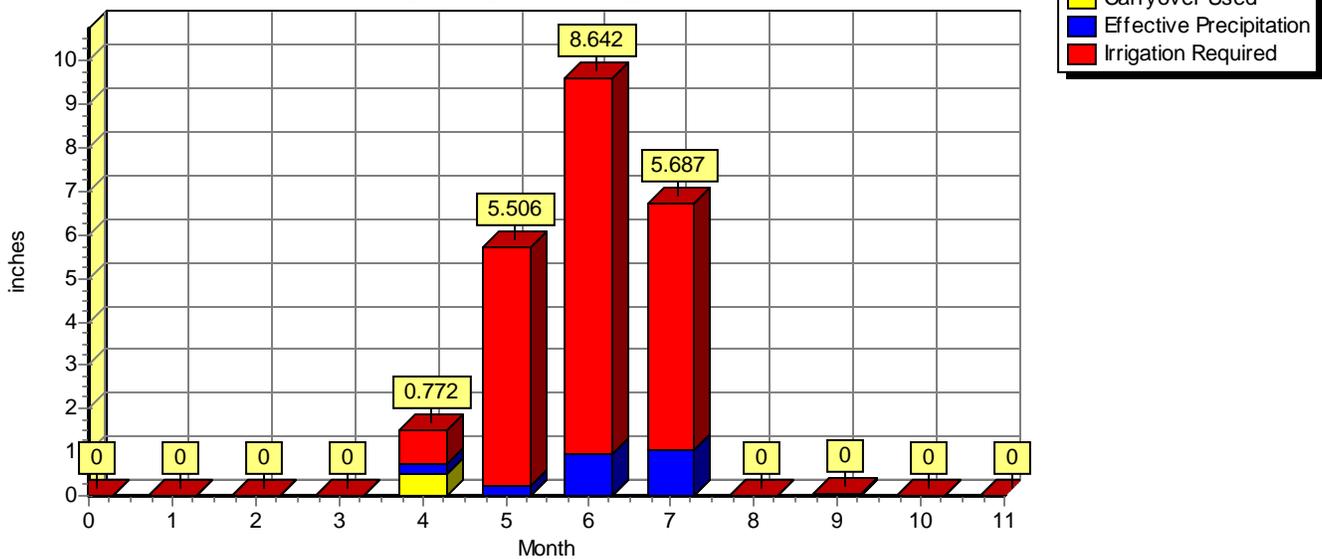
Estimated carryover moisture used at season:

Begin: **0.5** inches End: **0.5** inches

**Irrigation Water Requirements
Normal Year (50% chance)**



**Irrigation Water Requirements
Dry Year (80% chance)**



Irrigation Water Requirements

Crop Data Summary

Job: Gallup	Crop: Oat hay
Location: Gallup	County: Mckinley, NM
By: Rhett	Date: 01/25/05
Weather Station: GALLUP FAA AP	Sta No: NM3422
Latitude: 3531 Longitude: 10847	Elevation: 6470 feet above sea level
Computation Method: Blaney Criddle (TR21)	Net irrigation application: 2 inches
Crop Curve: Blaney Criddle Annual Crop	Estimated carryover moisture used at season:
Begin Growth: 5/1 End Growth: 8/30	Begin: 0.5 inches End: 0.5 inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Requirements inches (2)	Effective Precipitation inches	Net Irrigation Requirements inches (2)		
January	0.00	0.00	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	0.00	0.00	
April	0.00	0.00	0.00	0.00	0.00	0.00	
May	4.31	0.29	3.52	0.40	3.42	0.14	
June	8.06	0.26	7.80	0.36	7.71	0.27	0.29
July	8.05	0.89	7.17	1.21	6.84	0.26	0.28
August	2.01	0.79	0.73	1.07	0.45	0.07	
September	0.00	0.00	0.00	0.00	0.00	0.00	
October	0.00	0.00	0.00	0.00	0.00	0.00	
November	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	22.44	2.22	19.22	3.03	18.41		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moisture used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 7/26/2005

Irrigation Water Requirements

Monthly Crop Water Requirements

Job: **Gallup**

Crop: **Oat hay**

Location: **Gallup**

Date: **01/25/05**

Computation Method: **Blaney Criddle (TR21)**

Crop Curve: **Blaney Criddle Annual Crop**

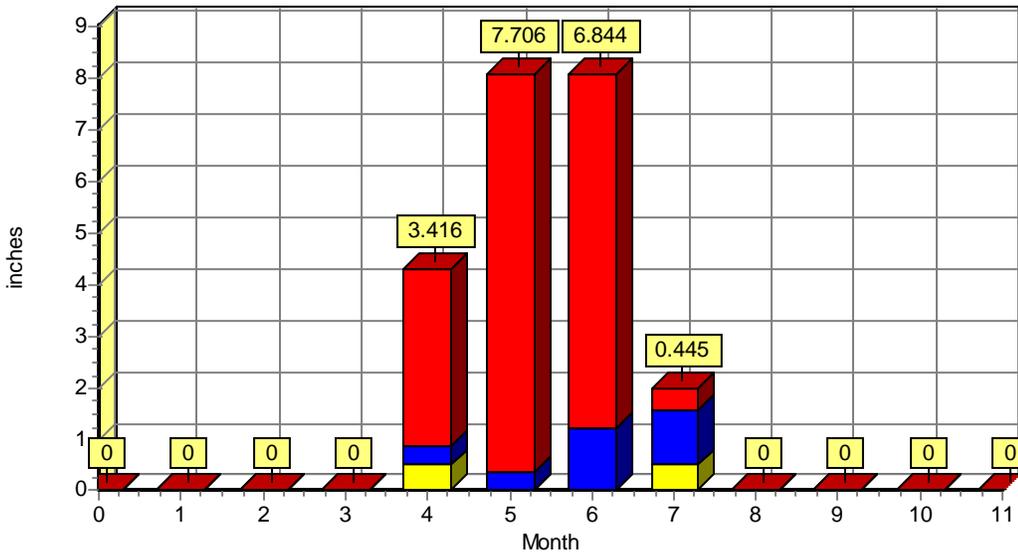
Begin Growth: **5/1** End Growth: **8/30**

Net irrigation application: **2** inches

Estimated carryover moisture used at season:

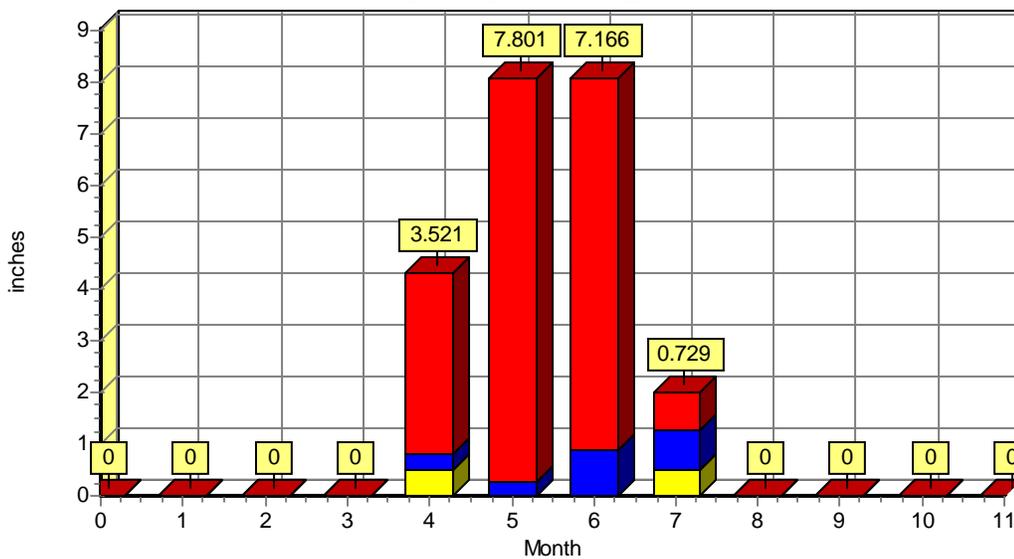
Begin: **0.5** inches End: **0.5** inches

Irrigation Water Requirements
Normal Year (50% chance)



■ Carryover Used
■ Effective Precipitation
■ Irrigation Required

Irrigation Water Requirements
Dry Year (80% chance)



■ Carryover Used
■ Effective Precipitation
■ Irrigation Required

Irrigation Water Requirements

Crop Data Summary

Job: Gallup	Crop: Pasture, cool season grass
Location: Gallup	County: Mckinley, NM
By: Rhett	Date: 01/25/05
Weather Station: GALLUP FAA AP	Sta No: NM3422
Latitude: 3531 Longitude: 10847	Elevation: 6470 feet above sea level
Computation Method: Blaney Criddle (TR21)	Net irrigation application: 2 inches
Crop Curve: Blaney Criddle Perennial Crop	Estimated carryover moisture used at season:
Begin Growth: 5/1 End Growth: 9/30	Begin: 0.5 inches End: 0.5 inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Requirements inches (2)	Effective Precipitation inches	Net Irrigation Requirements inches (2)		
January	0.00	0.00	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	0.00	0.00	
April	0.00	0.00	0.00	0.00	0.00	0.00	
May	2.85	0.27	2.09	0.36	1.99	0.09	
June	5.60	0.23	5.37	0.31	5.29	0.19	0.20
July	6.96	0.84	6.12	1.14	5.82	0.22	0.25
August	6.11	1.02	5.09	1.38	4.73	0.20	0.22
September	3.84	0.50	2.84	0.68	2.66	0.13	
October	0.00	0.00	0.00	0.00	0.00	0.00	
November	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	25.36	2.85	21.51	3.88	20.48		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moisture used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 7/26/2005

Irrigation Water Requirements

Monthly Crop Water Requirements

Job: **Gallup**

Crop: **Pasture, cool season grass**

Location: **Gallup**

Date: **01/25/05**

Computation Method: **Blaney Criddle (TR21)**

Crop Curve: **Blaney Criddle Perennial Crop**

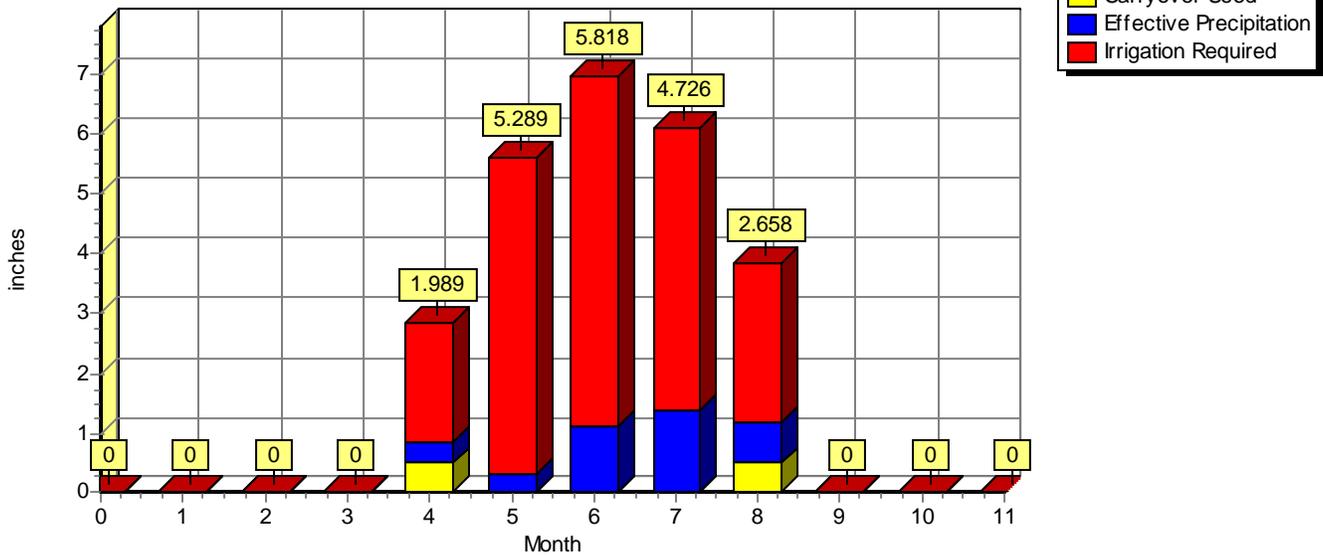
Begin Growth: **5/1** End Growth: **9/30**

Net irrigation application: **2** inches

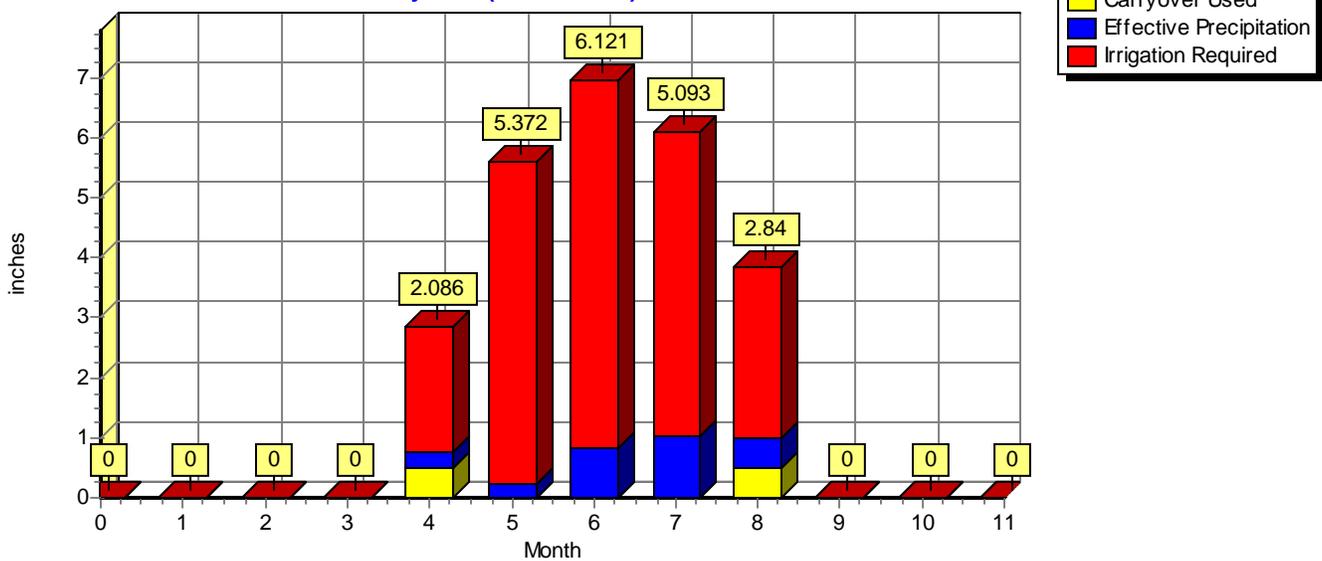
Estimated carryover moisture used at season:

Begin: **0.5** inches End: **0.5** inches

Irrigation Water Requirements
Normal Year (50% chance)



Irrigation Water Requirements
Dry Year (80% chance)



Irrigation Water Requirements

Crop Data Summary

Job: Gallup	Crop: Wheat, winter, grain
Location: Gallup	County: Mckinley, NM
By: Rhett	Date: 01/25/05
Weather Station: GALLUP FAA AP	Sta No: NM3422
Latitude: 3531 Longitude: 10847	Elevation: 6470 feet above sea level
Computation Method: Blaney Criddle (TR21)	Net irrigation application: 2 inches
Crop Curve: Blaney Criddle Annual Crop	Estimated carryover moisture used at season:
Begin Growth: 9/1 End Growth: 5/30	Begin: 0.5 inches End: 0.5 inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Requirements inches (2)	Effective Precipitation inches	Net Irrigation Requirements inches (2)		
January	0.57	0.33	0.24	0.45	0.12	0.02	0.02
February	0.82	0.28	0.55	0.38	0.45	0.03	0.03
March	1.58	0.37	1.20	0.50	1.07	0.05	0.06
April	2.85	0.22	2.62	0.31	2.54	0.09	0.10
May	5.22	0.31	4.42	0.42	4.30	0.17	
June	0.00	0.00	0.00	0.00	0.00	0.00	
July	0.00	0.00	0.00	0.00	0.00	0.00	
August	0.00	0.00	0.00	0.00	0.00	0.00	
September	1.72	0.44	0.78	0.60	0.62	0.06	
October	1.01	0.43	0.58	0.58	0.43	0.03	0.04
November	0.55	0.37	0.19	0.50	0.05	0.02	0.02
December	0.51	0.27	0.23	0.37	0.13	0.02	0.02
TOTAL	14.82	3.02	10.80	4.11	9.71		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moisture used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 7/26/2005

Irrigation Water Requirements

Monthly Crop Water Requirements

Job: **Gallup**

Crop: **Wheat, winter, grain**

Location: **Gallup**

Date: **01/25/05**

Computation Method: **Blaney Criddle (TR21)**

Crop Curve: **Blaney Criddle Annual Crop**

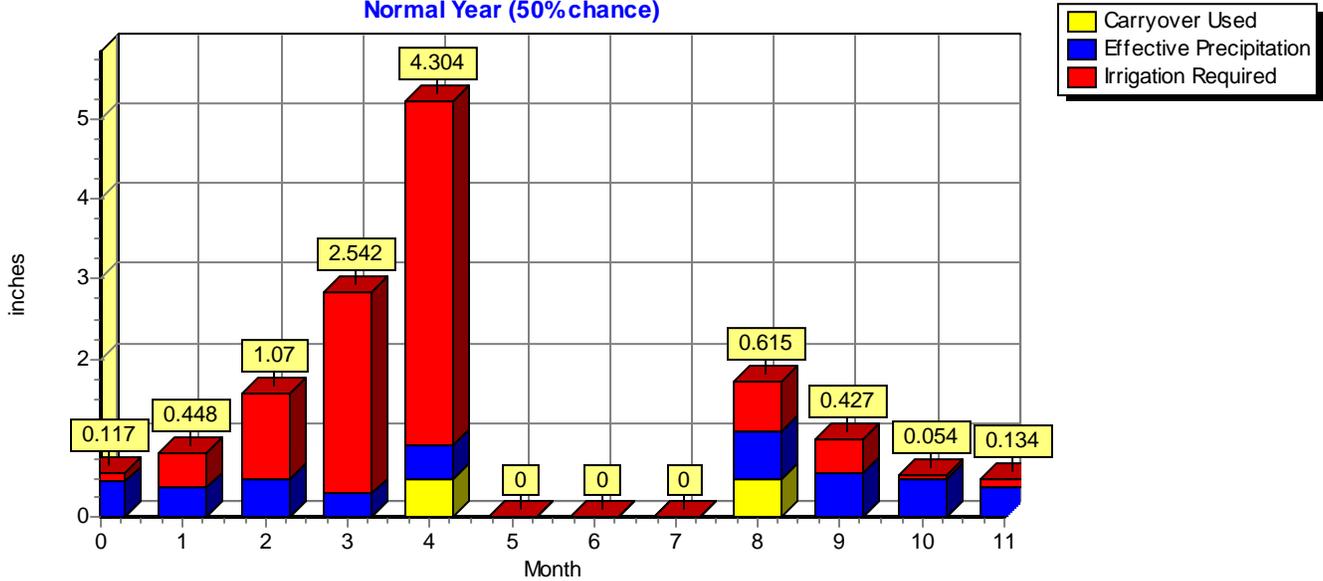
Begin Growth: **9/1** End Growth: **5/30**

Net irrigation application: **2** inches

Estimated carryover moisture used at season:

Begin: **0.5** inches End **0.5** inches

Irrigation Water Requirements
Normal Year (50% chance)



Irrigation Water Requirements
Dry Year (80% chance)

