Irrigation Water Requirements

Crop Data Summaries

Hot Springs County, Wyoming

Thermopolis – Alfalfa Hay....2
Thermopolis – Barley....3
Thermopolis – Corn, Grain....4
Thermopolis – Corn, Silage....5
Thermopolis – Dry beans....6
Thermopolis – Grass Hay....7
Thermopolis – Oats....8
Thermopolis – Pasture (grass)....9
Thermopolis – Sugar beet....10

Figure 1 Thermopolis – Alfalfa Hay

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Perennial Crop**
Begin Growth: **4/28** End Growth: **9/28**

Crop: **Alfalfa Hay**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	0.25	0.05	0.00	0.06	0.00	0.08	
May	3.76	0.99	1.98	1.31	1.63	0.12	0.14
June	6.33	0.76	5.57	1.01	5.32	0.21	0.24
July	8.35	0.63	7.73	0.83	7.52	0.27	0.32
August	6.93	0.47	6.45	0.63	6.30	0.22	0.26
September	3.49	0.46	2.03	0.61	1.88	0.12	
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	**29.11**	**3.35**	**23.76**	**4.46**	**22.65**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Annual Crop**
Begin Growth: **4/11** End Growth: **8/19**

Crop: **Barley**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	0.36	0.24	0.00	0.32	0.00	0.02	
May	3.05	0.95	1.22	1.26	0.83	0.10	0.11
June	7.11	0.79	6.32	1.05	6.06	0.24	0.27
July	6.59	0.57	5.63	0.76	5.37	0.21	0.25
August	0.82	0.21	0.00	0.28	0.00	0.04	
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	**17.93**	**2.76**	**13.17**	**3.67**	**12.25**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007

Figure 3 Thermopolis – Corn, Grain

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Annual Crop**
Begin Growth: **5/14** End Growth: **9/15**

Crop: **Corn, Grain**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	0.82	0.47	0.00	0.63	0.00	0.05	
June	3.86	0.66	2.54	0.88	2.17	0.13	0.14
July	7.79	0.61	7.18	0.81	6.98	0.25	0.30
August	6.64	0.46	6.17	0.62	6.02	0.21	0.25
September	1.65	0.24	0.41	0.32	0.33	0.11	
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	**20.76**	**2.45**	**16.31**	**3.25**	**15.51**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007

Figure 4 Thermopolis – Corn, Silage

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Annual Crop**
Begin Growth: **5/14** End Growth: **9/15**

Crop: **Corn, Silage**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	0.79	0.47	0.00	0.63	0.00	0.04	
June	3.50	0.65	2.17	0.86	1.80	0.12	0.13
July	7.31	0.59	6.72	0.79	6.52	0.24	0.28
August	6.93	0.47	6.46	0.63	6.31	0.22	0.26
September	1.84	0.24	0.60	0.33	0.52	0.12	
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	**20.37**	**2.43**	**15.94**	**3.23**	**15.14**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007

Figure 5 Thermopolis – Dry beans

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Annual Crop**
Begin Growth: **5/31** End Growth: **9/8**

Crop: **Dry beans**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	0.06	0.00	0.00	0.00	0.00	0.06	
June	3.53	0.65	1.94	0.86	1.73	0.12	0.13
July	7.93	0.61	7.32	0.81	7.11	0.26	0.31
August	5.81	0.44	5.11	0.59	4.92	0.19	0.22
September	0.87	0.13	0.00	0.17	0.00	0.11	
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	**18.20**	**1.83**	**14.37**	**2.44**	**13.77**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007

Figure 6 Thermopolis – Grass Hay

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Perennial Crop**
Begin Growth: **4/11** End Growth: **10/21**

Crop: **Grass Hay**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	0.74	0.43	0.00	0.57	0.00	0.04	
May	3.12	0.95	1.48	1.27	1.03	0.10	0.11
June	5.17	0.71	4.46	0.95	4.23	0.17	0.19
July	6.94	0.58	6.36	0.77	6.17	0.22	0.26
August	5.92	0.45	5.47	0.59	5.32	0.19	0.22
September	3.31	0.49	2.68	0.65	2.40	0.11	0.12
October	1.21	0.36	0.00	0.47	0.00	0.06	
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	**26.42**	**3.96**	**20.45**	**5.27**	**19.15**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007

Figure 7 Thermopolis – Oats

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Annual Crop**
Begin Growth: **4/11** End Growth: **8/19**

Crop: **Oats**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	0.36	0.24	0.00	0.32	0.00	0.02	
May	3.05	0.95	1.22	1.26	0.83	0.10	0.11
June	7.11	0.79	6.32	1.05	6.06	0.24	0.27
July	6.59	0.57	5.63	0.76	5.37	0.21	0.25
August	0.82	0.21	0.00	0.28	0.00	0.04	
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	**17.93**	**2.76**	**13.17**	**3.67**	**12.25**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007

Figure 8 Thermopolis – Pasture (grass)

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Perennial Crop**
Begin Growth: **4/11** End Growth: **10/21**

Crop: **Pasture (grass)**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	0.74	0.43	0.00	0.57	0.00	0.04	
May	3.12	0.95	1.48	1.27	1.03	0.10	0.11
June	5.17	0.71	4.46	0.95	4.23	0.17	0.19
July	6.94	0.58	6.36	0.77	6.17	0.22	0.26
August	5.92	0.45	5.47	0.59	5.32	0.19	0.22
September	3.31	0.49	2.68	0.65	2.40	0.11	0.12
October	1.21	0.36	0.00	0.47	0.00	0.06	
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	**26.42**	**3.96**	**20.45**	**5.27**	**19.15**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007

Figure 9 Thermopolis – Sugar beet

Irrigation Water Requirements
Crop Data Summary

Job: **Thermopolis**
Location: **Thermopolis**
By: **L Cornia**
Weather Station: **THERMOPOLIS 2**
Latitude: **4339** Longitude: **10813**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Annual Crop**
Begin Growth: **5/7** End Growth: **9/15**

Crop: **Sugar beet**
County: **Hot Springs, WY**
Date: **01/17/07**
Sta No: **WY8880**
Elevation: **4400** feet above sea level

Net irrigation application: **2** inches
Estimated carryover moisture used at season:
Begin: **1** inches End: **1** 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 Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements 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	1.09	0.67	0.00	0.89	0.00	0.04	
June	4.49	0.68	3.22	0.91	2.78	0.15	0.16
July	8.57	0.63	7.94	0.84	7.73	0.28	0.33
August	7.94	0.50	7.44	0.66	7.27	0.26	0.31
September	2.01	0.25	0.76	0.33	0.68	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	**24.09**	**2.73**	**19.36**	**3.64**	**18.46**		

(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 moiature used at the end of the growing season.

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

Date: 1/22/2007