

# STEP-BY-STEP APPLICATION OF AgrMet

[AgriMet Columbia-Pacific Northwest Region | Bureau of Reclamation \(usbr.gov\)](#)

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**INFORMATION MOST OFTEN USED:** the next pages will examine each data criteria

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## Crop Water Use Information

**AgriMet is excited to announce a partnership with Washington State University to incorporate AgriMet data into WSU's Irrigation Scheduler. To customize crop consumptive water use specific to your field or fields, [click here](#).**

Crop Water Use Charts (available April through October, updated daily by 6:30 am MDT)

Information about AgriMet Crop Water Use Charts

The 1982 Kimberly-Penman Reference Evapotranspiration Model

The ASCE-EWRI Standardized ET Equation

Key to Crop Codes in Water Use Charts

Historical ET (evapotranspiration) Summary Data (Current and previous years)

Annual Evapotranspiration Totals and Averages (All crops, all stations, period of record)

Monthly Average Reference Evapotranspiration

Graphs of daily evapotranspiration for each AgriMet station. (Updated each morning at 6:00 am)

AgriMet Crop Coefficients (Graphical and Tabular Format)

AgriMet Crop Coefficients (Text File)

Information about AgriMet Crop Coefficients

Definitions of Crop Start, Cover, and Terminate Dates

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## AgriMet Crop Charts

Historical crop consumptive water use data is available here.

To automatically download station information, please use the following links:

- [JSON Format](#)
- [CSV Format](#)

Station ID	Station Name	State	5 Days	Year
abel	Aberdeen, Idaho Weather Station	ID	abel 5 day	abel year
acki	INL - Blackfoot, Idaho Weather Station	ID	acki 5 day	acki year
afty	Afton, Wyoming AgriMet Weather Station	WY	afty 5 day	afty year
agko	Agency Lake Ranch, Oregon AgriMet Weather Station	OR	agko 5 day	agko year
ahti	Ashton, Idaho AgriMet Weather Station	ID	ahti 5 day	ahti year
anvn	DRI - Antelope Valley, Nevada Weather Station	NV	anvn 5 day	anvn year
arao	Aurora, Oregon AgriMet Weather Station	OR	arao 5 day	arao year
bano	Bandon, Oregon AgriMet Weather Station	OR	bano 5 day	bano year
bato	Beatty, Oregon AgriMet Weather Station	OR	bato 5 day	bato year
bewo	Bend, Oregon AgriMet Weather Station	OR	bewo 5 day	bewo year
bfam	Blackfeet-Seville Colony, MT (BFAM)	MT	bfam 5 day	bfam year

“Station ID” will display the description of the station

Provides the five-day forecast

Provides year to date ET values

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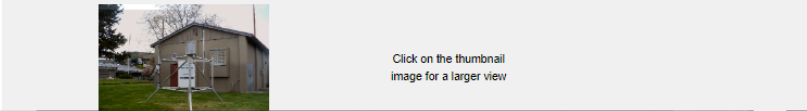
**Bend, Oregon AgriMet Weather Station (bewo)**

Latitude: 44.0475 N  
Longitude: -121.32027 W  
Elevation: 3620'  
Installation Date: 5/1/2003

- Instant Weather Data
- Daily Weather Data
- Crop Water Use
- ET Summary
- Graphs
- Weather Forecast (NWS)
- Station Parameters
- AgriMet Network Map



View North



Click on the thumbnail image for a larger view

### FIVE DAY FORECAST:

\*\*\*\*\*  
 \* ESTIMATED CROP WATER USE - Jun 29, 2022 POBO \*  
 \* \*\*\*\*\*  
 \* DAILY \* \* \* \* \*  
 \* CROP WATER USE-(IN) \* DAILY\* \* \* \* \* 7 \* 14 \*  
 \* CROP START\* PENMAN ET - Jun \* FORE \*COVER\* TERM\* SUM \* DAY\* DAY \*  
 \* DATE\* \* \* \* \* CAST \* DATE\* DATE\* ET \* USE\* USE \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* ETr 01/01\* 0.36 0.39 0.45 0.38 \* 0.41 \*01/01\*10/31\* 25.6 \* 2.6\* 4.2 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* ALPP 03/20\* 0.36 0.39 0.45 0.38 \* 0.41 \*05/20\*10/05\* 16.1 \* 2.6\* 4.2 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* ALFM 03/20\* 0.31 0.33 0.38 0.32 \* 0.35 \*05/20\*10/05\* 14.1 \* 2.2\* 3.5 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* HAYP 03/15\* 0.33 0.36 0.41 0.35 \* 0.37 \*05/10\*10/05\* 17.4 \* 2.4\* 3.8 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* HAYM 03/15\* 0.29 0.31 0.36 0.30 \* 0.33 \*05/25\*10/25\* 16.6 \* 2.1\* 3.4 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* PAST 03/15\* 0.24 0.27 0.31 0.26 \* 0.28 \*05/25\*10/25\* 11.6 \* 1.8\* 2.8 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* LAWN 03/15\* 0.29 0.31 0.36 0.30 \* 0.33 \*05/01\*10/05\* 14.3 \* 2.1\* 3.3 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* BLGR 03/15\* 0.13 0.13 0.15 0.12 \* 0.14 \*05/10\*07/15\* 14.3 \* 0.9\* 1.8 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* WGRN 03/10\* 0.36 0.39 0.45 0.38 \* 0.41 \*06/01\*07/25\* 17.6 \* 2.6\* 4.2 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*  
 \* SGRN 04/10\* 0.36 0.39 0.45 0.38 \* 0.41 \*06/25\*08/01\* 12.7 \* 2.6\* 4.2 \*  
 \*-----\*-----\*-----\*-----\*-----\*-----\*-----\*-----\*

Annotations:  
 - Crop emergence date: points to 01/01\*  
 - Previous 4 day readings: points to columns 25, 26, 27, 28  
 - Average of the last 3 days: points to columns 0.36, 0.39, 0.45  
 - Date the crop is at full foliage: points to 10/31\*  
 - Date the crop is at dormancy: points to 10/05\*  
 - Total crop water use since the start date: points to 25.6  
 - Sum of the crop water use in the last 7 days: points to 2.6\*  
 - Sum of the crop water use in the last 14 days: points to 4.2\*

### YEAR TO DATE:

POBO - ET SUMMARY - 2022

DATE ETr ALFP ALFM HAYP HAYM PAST LAWN BLGR WGRN SGRN SGRN SGRN SGRN FCRN FCRN SOYB GARL POTA PPMT NMNT SBRY BLUB TBER APPL WGRP CGRP POP1 POP2 POP3

01/02 0.09 --  
 01/03 0.05 --  
 01/04 0.04 --

### Cummulative ET data for each day to date:

03/28 0.12 0.05 0.05 0.10 0.09 0.04 0.07 0.00 0.07 -- -- -- -- -- -- 0.05 -- -- -- 0.05 -- 0.02 -- -- -- -- -- --  
 03/29 0.15 0.04 0.04 0.12 0.12 0.05 0.09 0.08 0.09 -- -- -- -- -- -- 0.07 -- -- -- 0.03 -- 0.02 -- -- -- -- -- --  
 03/30 0.13 0.04 0.04 0.11 0.10 0.05 0.08 0.08 0.08 -- -- -- -- -- -- 0.06 -- -- -- 0.03 -- 0.02 -- -- -- -- -- --  
 03/31 0.12 0.04 0.04 0.10 0.10 0.05 0.07 0.07 0.08 -- -- -- -- -- -- 0.06 -- -- -- 0.03 -- 0.02 -- -- -- -- -- --  
 04/01 0.16 0.06 0.06 0.14 0.13 0.06 0.10 0.10 0.10 -- -- -- -- -- -- 0.08 -- -- -- 0.04 -- 0.03 -- -- -- -- -- --  
 04/02 0.15 0.06 0.06 0.13 0.12 0.06 0.10 0.10 0.10 -- -- -- -- -- -- 0.08 -- -- -- 0.05 -- 0.03 -- -- -- -- -- --  
 04/03 0.15 0.07 0.07 0.13 0.12 0.06 0.10 0.10 0.10 -- -- -- -- -- -- 0.08 -- -- -- 0.05 -- 0.03 -- -- -- -- -- --  
 04/04 0.10 0.05 0.05 0.09 0.08 0.04 0.07 0.07 0.07 -- -- -- -- -- -- 0.05 -- -- -- 0.03 -- 0.02 -- -- -- -- -- --  
 04/05 0.12 0.06 0.06 0.10 0.10 0.05 0.09 0.09 0.09 -- -- -- -- -- -- 0.06 -- -- -- 0.04 -- 0.02 -- -- -- -- -- --  
 04/06 0.20 0.11 0.11 0.18 0.17 0.09 0.15 0.15 0.15 -- -- -- -- -- -- 0.10 -- -- -- 0.08 -- 0.04 -- -- -- -- -- --  
 04/07 0.25 0.14 0.14 0.22 0.21 0.11 0.19 0.20 0.19 -- -- -- -- -- -- 0.13 -- -- -- 0.10 -- 0.06 -- -- -- -- -- --  
 04/08 0.16 0.09 0.09 0.14 0.14 0.07 0.12 0.13 0.12 -- -- -- -- -- -- 0.08 -- -- -- 0.07 -- 0.04 -- -- -- -- -- --  
 04/09 0.12 0.07 0.07 0.11 0.10 0.06 0.09 0.10 0.09 -- -- -- -- -- -- 0.06 -- -- -- 0.06 -- 0.03 -- -- -- -- -- --  
 04/10 0.10 0.06 0.06 0.09 0.09 0.05 0.08 0.08 0.08 0.02 -- -- -- -- -- -- 0.05 -- -- -- 0.05 -- 0.03 -- -- -- -- -- --  
 04/11 0.11 0.07 0.07 0.10 0.10 0.05 0.09 0.09 0.09 0.02 -- -- -- -- -- -- 0.06 -- -- -- 0.06 -- 0.03 -- -- -- -- -- --  
 04/12 0.09 0.06 0.06 0.08 0.08 0.04 0.07 0.08 0.07 0.02 -- -- -- -- -- -- 0.05 -- -- -- 0.05 -- 0.03 -- -- -- -- -- --  
 04/13 0.12 0.08 0.08 0.11 0.11 0.06 0.10 0.11 0.10 0.02 -- -- -- -- -- -- 0.06 -- -- -- 0.07 -- 0.04 -- -- -- -- -- --  
 04/14 0.09 0.06 0.06 0.08 0.08 0.05 0.07 0.08 0.08 0.02 -- -- -- -- -- -- 0.05 -- -- -- 0.05 -- 0.03 -- -- -- -- -- --  
 04/15 0.13 0.09 0.09 0.12 0.12 0.07 0.10 0.12 0.11 0.03 0.03 -- -- -- -- -- -- 0.07 -- -- -- 0.08 0.02 0.04 -- -- 0.02 0.02 0.02 0.02  
 04/16 0.09 0.07 0.07 0.08 0.08 0.05 0.07 0.08 0.08 0.02 0.02 -- -- -- -- -- -- 0.05 -- -- -- 0.06 0.02 0.03 -- -- 0.01 0.01 0.01 0.02  
 04/17 0.13 0.10 0.10 0.12 0.12 0.07 0.10 0.12 0.12 0.03 0.03 -- -- -- -- -- -- 0.07 -- -- -- 0.09 0.03 0.05 -- -- 0.02 0.02 0.02 0.02  
 04/18 0.17 0.13 0.13 0.16 0.15 0.10 0.14 0.16 0.15 0.03 0.03 -- -- -- -- -- -- 0.09 -- -- -- 0.12 0.04 0.07 -- -- 0.03 0.03 0.03 0.04  
 04/19 0.11 0.09 0.09 0.10 0.10 0.07 0.09 0.10 0.10 0.02 0.02 -- -- -- -- -- -- 0.06 -- -- -- 0.08 0.02 0.05 -- -- 0.02 0.02 0.02 0.03  
 04/20 0.16 0.13 0.13 0.15 0.15 0.10 0.13 0.15 0.15 0.04 0.03 -- -- -- -- -- -- 0.08 -- -- -- 0.12 0.04 0.07 -- -- 0.03 0.03 0.03 0.03 0.04  
 04/21 0.14 0.11 0.11 0.13 0.13 0.08 0.11 0.13 0.13 0.03 0.03 -- -- -- -- -- -- 0.07 -- -- -- 0.11 0.03 0.06 -- -- 0.02 0.02 0.03 0.03 0.04





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### Evapotranspiration Totals and Averages

\*Note: The 2014 and 2015 totals use the Penman-Monteith ASCE ET equation while all previous years use the Kimberly-Penman equation. We apologize for the inconvenience.

Region	Station	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2014	2015	Average
ABEI -- Aberdeen, Idaho	Alfalfa (Mean)	--	--	--	33.8	38.7	30.8	37.8	33.6	34.9	32.3	32.3	36.6	38.9	35	6	39.8	43.9	41.8	37.8
	Pasture	--	--	--	26.7	30.5	24.3	30.6	27.1	28.2	26.0	26.0	29.0	31.1	31	8	32.4	34.7	33.0	30.3
	Lawn	--	--	--	--	--	29.7	37.0	32.9	34.2	31.6	31.5	33.1	37.7	37	1	39.2	42.1	40.2	36.8
	Winter Grain	--	--	--	22.3	25.1	21.8	22.6	20.2	24.1	23.4	20.8	23.0	23.9	26	6	27.6	29.0	28.1	25.2
	Spring Grain	--	--	--	21.5	24.4	19.7	22.1	21.0	23.3	20.8	20.5	21.3	24.0	24	0	26.5	27.1	23.0	24.0
	Sugar Beets	--	--	--	27.1	29.6	24.1	29.9	27.6	26.8	24.9	26.8	30.1	31.5	28	2	31.0	28.2	26.8	28.9
	Shepody Potatoes	--	--	--	--	--	--	25.6	23.3	23.6	21.4	21.8	23.8	24.8	24	5	27.9	27.8	24.6	25.4
	Potatoes	--	--	--	22.7	24.8	20.2	25.9	24.5	23.7	21.7	22.7	25.8	24.9	25	3	29.2	28.9	27.5	25.3
	Field Corn	--	--	--	21.7	25.3	18.8	25.5	24.4	23.1	21.3	24.3	25.4	25.6	26	9	27.7	25.3	24.1	25.0
	Peas	--	--	--	14.5	14.4	13.5	16.3	12.7	15.3	14.4	--	--	--	--	--	--	--	--	14.4
Rapeseed	--	--	--	--	--	--	--	--	--	--	20.9	19.2	17.9	20.2	19	2	24.8	22.9	20.1	22.2
AFTY -- Afton, Wyoming	Alfalfa (Mean)	31.1	25.2	24.7	22.6	27.7	21.5	28.9	24.3	28.8	21.3	20.9	21.5	27.5	28	1	28.8	27.9	30.2	26.2
	Pasture	24.6	20.1	19.5	17.9	21.8	17.2	23.2	19.4	23.1	17.6	17.0	17.6	22.7	22	3	23.4	22.4	24.0	21.1
	Lawn	--	--	--	--	--	21.2	28.3	23.5	27.9	21.5	20.6	21.4	27.5	25	6	28.4	27.3	29.6	25.8
	Spring Grain	23.1	18.7	18.2	17.7	19.9	16.0	21.8	17.8	22.2	17.1	17.5	18.8	22.0	21	2	22.6	20.4	19.8	20.2