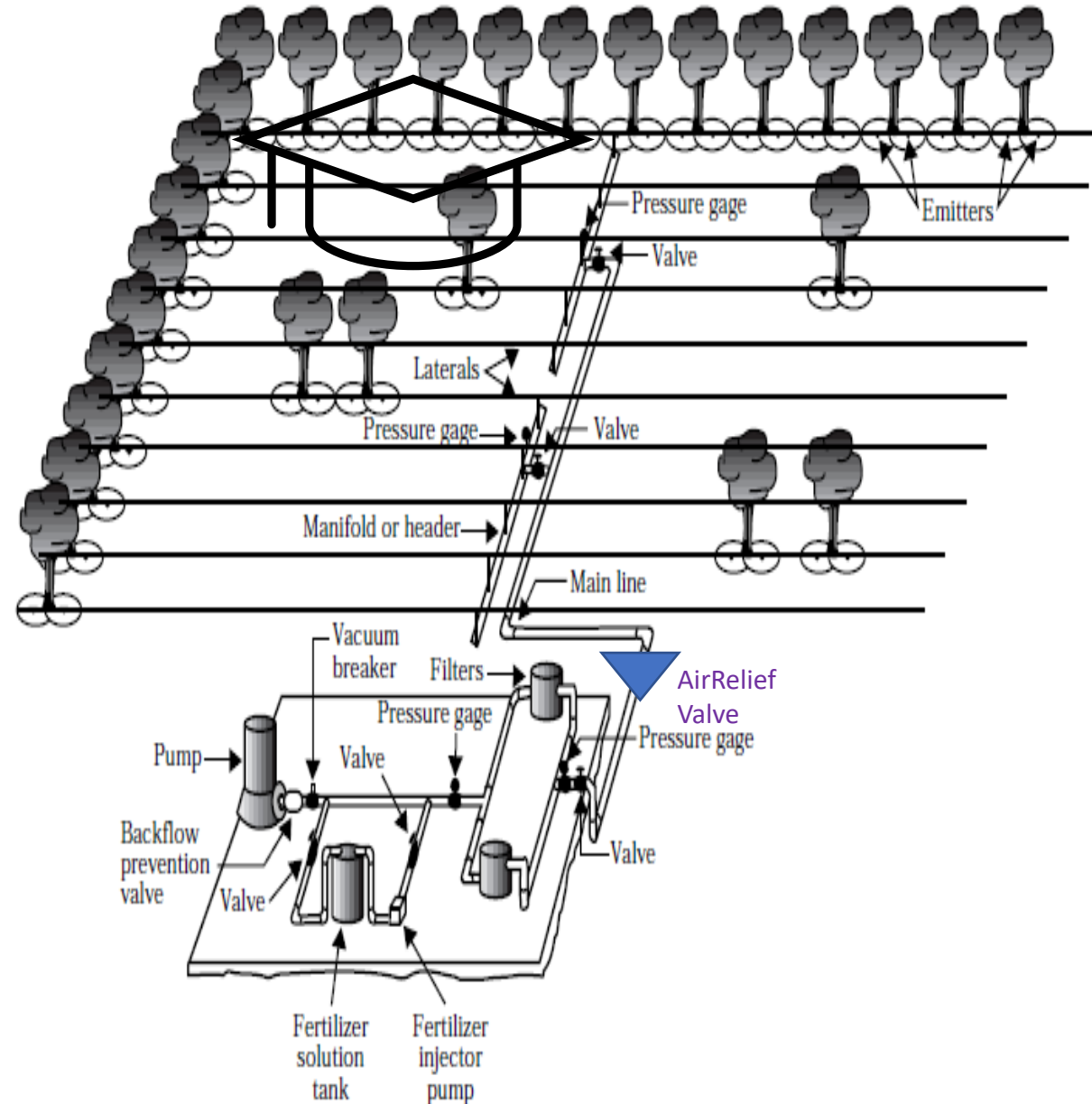


Irrigation Considerations When Developing a Ground Water Well

Assessing Your Farm Irrigation System

- Regardless of crop or irrigation system, common problems occur in all types of systems.
- Sections of system to access include;
- Point of Connection /Pump
- Filter System
- Mainline & Valving
- Zone Valves Headers
- Laterals
- Comparison of system demand to actual application.



Backflow Preventors



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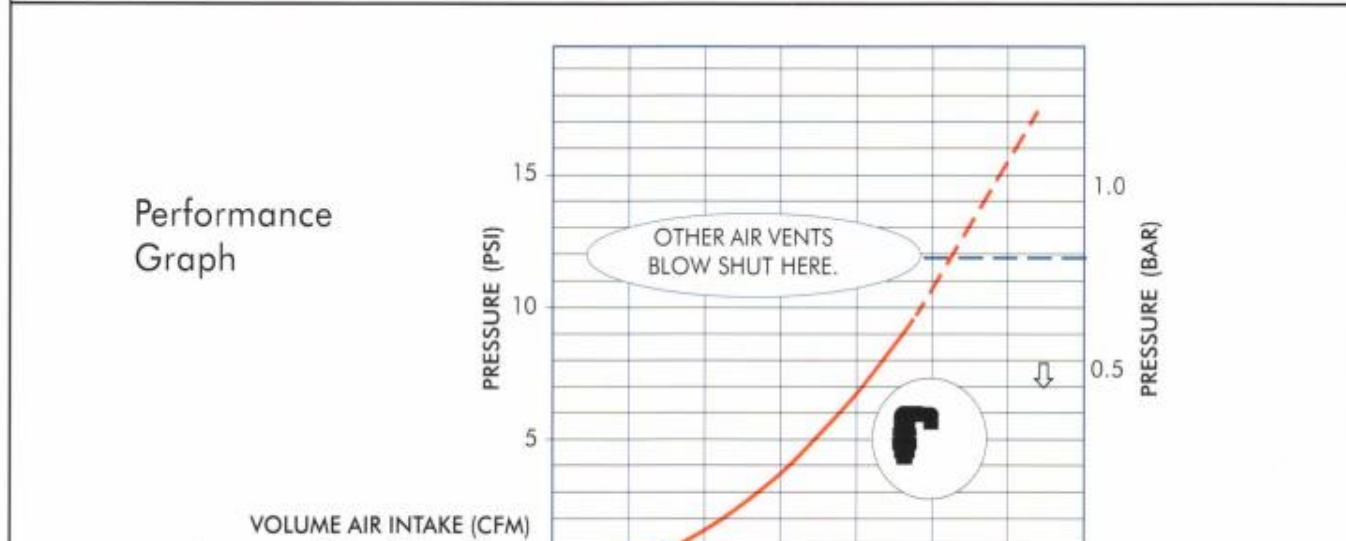
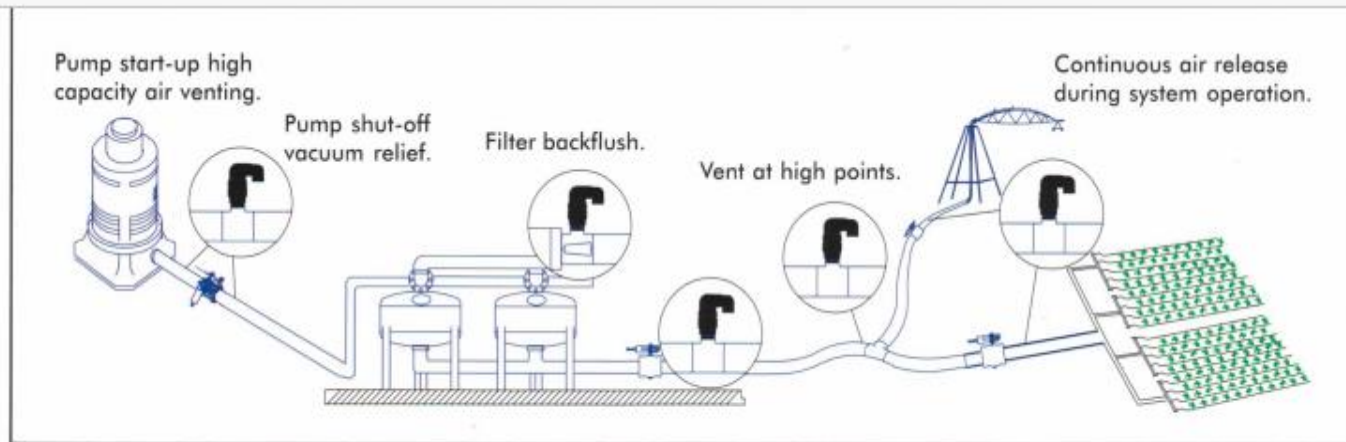
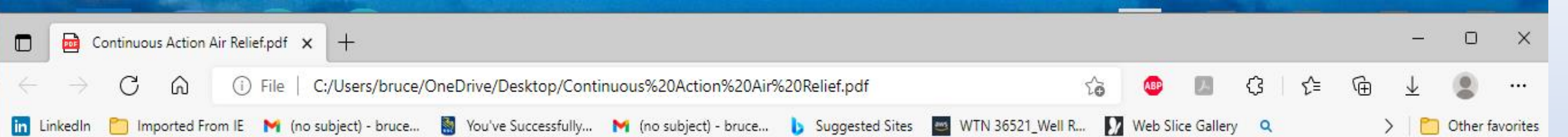
Water Meters

Filtration



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Air Relief Valves- Air, Vacuum, Continuous Acting



Air Relief
Valves
Kinnetic
Vacuum
Continuous
Action

Climate Change, Proactive Measures



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Crop Coefficients

farmwest - Search x Crop Coefficients - Farmwest x GDD - Farmwest x +

https://farmwest.com/climate/calculator-information/et/crop-coefficients/

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Crop	Kc ini	Kc mid	Kc end	Crop	Kc ini	Kc mid	Kc end
alfalfa	0.4	1.2	1.15	onions	0.7	1.05	0.95
apples	0.5	1.2	0.85	pasture	0.4	1	0.85
apricots	0.45	1.15	0.85	peaches	0.45	1.15	0.85
beans, green	0.5	1.05	0.9	pears	0.5	1.2	0.85
beets	0.5	1.05	0.95	peas	0.5	1.15	1.1
berries, bushes	0.3	1.05	0.5	potato	0.5	1.15	0.75
broccoli	0.7	1.05	0.95	pumpkin	0.5	1	0.8
cabbage	0.7	1.05	0.95	radish	0.7	0.9	0.85
cabbage-local	0.7	1.05	0.95	small vegetables	0.7	1.05	0.95
carrots	0.7	1.05	0.95	spinach	0.7	1.05	0.95
cauliflower	0.7	1.05	0.95	squash	0.5	0.95	0.75
celery	0.7	1.05	0.95	stone fruits	0.45	1.15	0.85
cereal	0.3	1.15	0.25	sweet corn	0.3	1.15	0.4
cherries	0.5	1.2	0.85	sweet peppers	0.7	1.05	0.85


Type here to search

13°C


Soil Moisture Sensors

extension://elhekieabhbkmcefcobjddigjcaadp/https://irrometer.com/pdf/401.pdf

Adobe Acrobat 401



The WATERMARK sensor can be installed on PVC pipe cut for any depth needed.



HAND-HELD METER

- One meter reads all WATERMARK sensors
- Clip-on leads for easy reading
- Digital read-out with self-test function
- Manual temperature compensation
- 9-volt battery lasts an entire year

Agricultural Irrigation SCHEDULING CALCULATOR

REGISTER NEW ACCOUNT

Returning Users

Username

Password

Login

Forgot Username/Password

Is this your first visit to the calculator?

This Irrigation Scheduling Calculator uses real-time daily Evapotranspiration (ET) rates determined from climate stations that are linked to www.Farmwest.com.

For new users, [CLICK HERE](#) to access our handy guides on how to use these calculators.

However, climate stations in the Province of Quebec are provided by MDDEP (Environment Quebec) and Environment and Climate Change Canada through AgWeather Quebec.

For cases where climate stations are not available, the Calculator

Also Available:

Landscape Irrigation
Scheduling Calculator



Click to Switch!

Crop Type

Step 1

Crop Type

The crop type will change the irrigation requirements for the field. Each crop type has a standard rooting depth which affects total available water storage capacity. The default rooting depth will automatically be used. If the rooting depth is different this value can be changed manually. The availability coefficient is also affected by the crop type. Certain plants have a better ability to withdraw moisture from the soil. This is reflected by the availability coefficient. Allowing the soil moisture to be depleted beyond the level indicated by the soil moisture availability coefficient may result in lost production.

Required Values

Crop

Cherries - Medium Density ?

Default Values

☐ Override Defaults?

Effective Rooting Depth of Mature Crops

3 ft ?

Availability Coefficient

0.4 ?

Climate Coefficients by Month

May

0.8 ?

June

1 ?

July

1.1 ?

August

1.1 ?

September

0.8 ?

Off Season

0.5 ?

[Save](#)

[Next Step: Soil Cross-Section](#)

[Schedule Irrigation](#)

[Soil Cross-Section](#)

[Irrigation System Design](#)

[Irrigation Scheduling](#)

Project: Sam Staccato

Irrigation System: Centre Pivot - Drop Rotor

Field: 1000ft x 410ft (410000 sq.ft)

[Open Calculator User Guides](#)

[Open Project Browser](#)

Soil Cross-Section

Soil Cross-Section

Previous Step: Crop Type

Required Values

☐ Sod Cover

Default Values

Save Next Step: Irrigation System Design Schedule Irrigation

Irrigation Scheduling

Field: 1000ft x 410ft (410000 sq.ft)

Irrigation System Design

Calculator

https://ag-calc.irrigationbc.com/reports/edit/5909

IE (no subject) - bruce... You've Successfully... (no subject) - bruce... Suggested Sites WTN 36521_Well R... Web Slice Gallery

Other favorites

Sprinkler Spacing 15 ft

Lateral Spacing 14 ft

Number of Sets 11

Set Duration 2 hrs

Sprinkler Type Microsprinkler

Saving and reloading report is required to have full access after changing to and from micro sprinklers.

Nominal (in)	Decimal (in)	Metric (mm)
-	0.034	0.86
-	0.039	0.99
-	0.041	1.04
-	0.048	1.21
-	0.049	1.24
-	0.055	1.4
-	0.057	1.45
-	0.065	1.65
-	0.071	1.8
-	0.079	2.01
-	0.091	2.31

Sprinkler Size

psi	WD
15	23
20	25
25	27.5

Water Pressure

11:45 AM 2022-10-19 ENG

Irrigation System Design

IIABC

Calculator

+

https://ag-calc.irrigationbc.com/reports/edit/5909

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	-	0.091	2.31
	psi		WD
Water Pressure	15	23	
	20	25	
	25	27.5	

Default Values

☐ Override Defaults?

Sets per Day12?

Flow Rate1.21lpm?

Flow Rate72.6liters per hour

Application Efficiency75%

Calculated Values

Application Rate0.15in/hr?

Gross Water Applied For Irrigation Period0.29in?

Net Water Applied For Irrigation Period0.22in?

Save

Next Step: Irrigation Scheduling

Schedule Irrigation

Farmwest Weather Based Calculators

iiabc irrigation - Search | iiabc IIABC | Evapotranspiration - Farmwest

https://farmwest.com/climate/calculators/evapotranspiration/






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DATE RANGE Oct 11 - Oct 18, 2022	TOTAL	DAILY AVERAGE
Evapotranspiration (mm):	17	2.2
Effective Precipitation (mm):	0	0
Moisture Deficit (mm):	17	2.2
Total Precipitation (mm):	0	0
Historical Average Moisture Deficit (mm):	-7	-0.9
Previous Year Moisture Deficit (mm):	10	1.2

[CLICK TO SEE DAILY DATA](#) [How is ET calculated?](#)

EVAPOTRANSPIRATION (mm)

CURRENT YEAR **HISTORICAL AVERAGE**

Forecast Evapotranspiration (mm)				
TUE Oct 18	WED Oct 19	THU Oct 20	FRI Oct 21	SAT Oct 22
				
1.40	1.39	1.37	0.92	0.88

[CLICK TO SEE FORECAST TEMPERATURE DATA](#)

Farmwest.com

Type here to search | 12°C | 7:47 PM 2022-10-18

Irrigation Scheduling

The irrigation schedule can now be determined for the field by selecting the closest weather station. The start date for the irrigation cycle also has to be entered. As an option the end date for the current irrigation cycle can also be entered. If an end date has been entered the current date can also be entered. The calculator will then go the Farmwest.com site and return the evapotranspiration data to determine the irrigation schedule. The box below will indicate if irrigation is required immediately or if not then the number of days before irrigation should begin again. If it is a drip system the calculator returns a run time for the zone.

1

Closest Weather Station

View Station Map

Province: British Columbia

Region: Okanagan North

Station: Winfield North

Enter Your Own Climate Data

2

Schedule Start Date

Click to Select a Starting Date

07-07-2022

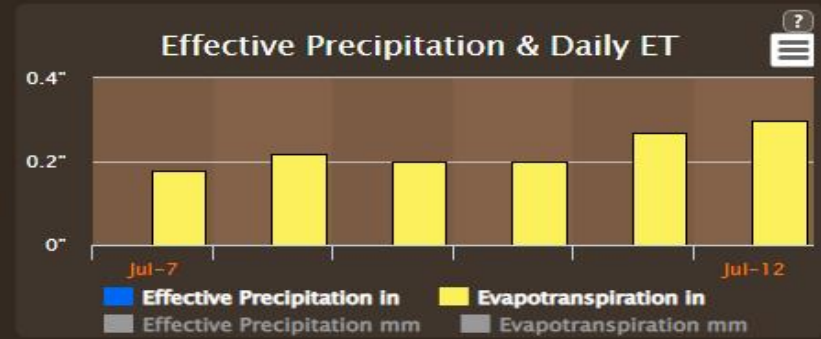
3

Irrigation End Date

Click to Select Date

07-07-2022

Load/Update Graphs

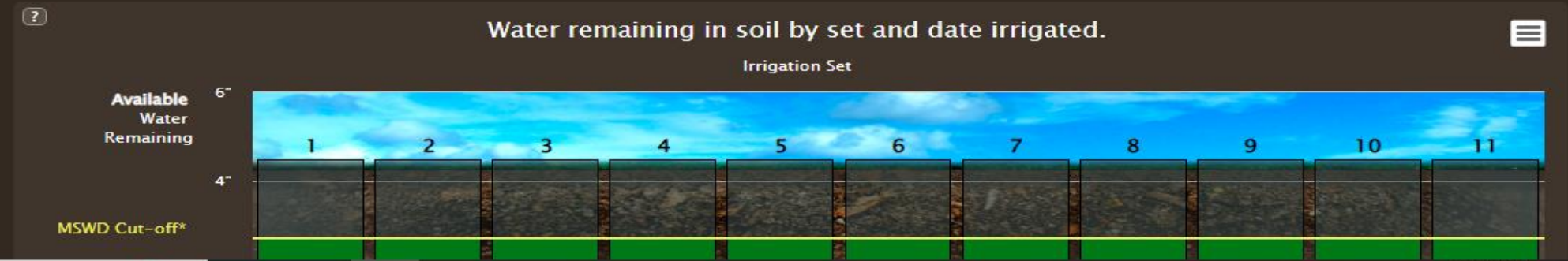


Estimated

1 day(s)

Until Next Irrigation

*Based on forecast ET, precip. and calculated water in the soil.



Final Report

iiabc - Search | iiabc | Calculator | Sam Staccato

https://ag-calc.irrigationbc.com/reports/printer/5909

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Crop Cherries - Medium Density

Soil Properties (includes sod)		
Soil Type	Soil Depth	Soil AWSC
Sandy Loam	36 in	1.5 in/ft
Sandy Loam	36 in	1.5 in/ft
Plant Rooting Depth		3 ft
Availability Coefficient		0.4
Max Soil Water Deficit		1.8 in
Max Application Rate		0.45 in/hr

Monthly Climate Modifier	
May	0.8
June	1
July	1.1
August	1.1
September	0.8
Off Season	0.5

Microsprinkler System Design	
Sprinkler Spacing	15 ft
Lateral Spacing	14 ft
Number of Sets	11
Set Duration	2 hrs
Sets per Day	12
Flow Rate	1.21 lpm
Application Efficiency	75 %
Application Rate	0.15 in/hr
Gross Applied	0.29 in
Net Applied	0.22 in

Selected Sprinkler	
Size	0.049 in 1.24 mm
Flow Rate	20 psi 0.32 gpm

Estimated 1 day(s) Until Next Irrigation
Simulation Results for the selected period of **07-07-2022** to **07-07-2022**

Print this Report
File #5906-5909

Questions

- Thank you for your time.
- Bruce Naka
- Sound Water Advise
- Irrigation Consulting