

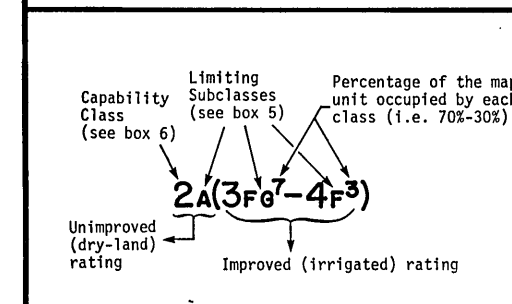
## CLIMATIC CAPABILITY FOR AGRICULTURE

### 1. Explanatory Notes

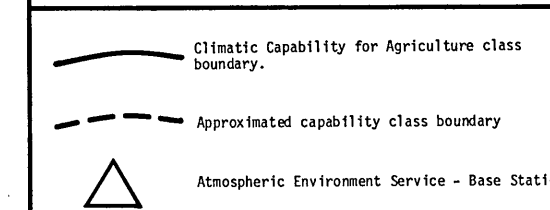
A climatic Capability for Agriculture map shows a system of classification which describes the agricultural capability of lands. The classification is based on the climatic characteristics of the lands, expressed by numbers, sometimes followed by letters, with Class I designating the lands having the highest capability and Class 7 having the lowest. The numbers are for climate, and the letters are for soil. The map shows the limitations which affect the capability of the land to support various types of agriculture. Most maps have been determined by thermal criteria, the first, indicating the capability class determined by the thermal regime and the second, shown in brackets indicating the capability class determined by the thermal regime and the soil.

The improved capability rating (lands being irrigated or otherwise improved) is synonymous with the class representing the thermal regime since the soil is not a factor in the improved rating. The improved ratings are indicated by a number in parentheses. The unimproved ratings (dry-land and irrigated) are indicated by a number and a letter. The limitations imposed are the moisture and/or the thermal criteria.

## 2. Example



### 3. Map Boundaries and Symbols



#### 4. Station Information

Base Station	Symbol	Period of Record Use
FORT ST JOHN		1951-80
BEAVER LODGE		1951-80

### 5. Limiting Subclasses

- A - Drought or aridity occurring between May 1st and September 30th resulting in moisture deficits which are limiting to plant growth.
- F - Minimum temperature near freezing adversely affecting plant growth during the growing season.
- G - Insufficient accumulation of heat units above 50°C during the growing season.
- E - Extreme minimum temperatures occurring during the winter season injuring or killing dormant or near dormant fruit trees.
- Y - Excess precipitation between May 1st and September 30th causing flooding, poor trafficability and generally poor yield and harvest conditions.

## 6. Summary of Limitations

CLASS	Q20 ABOVE 5% (%·GAYS)	Q100 ABOVE 5% (%·GAYS)	TFP (DAYS)		Q90 (ms) (negative PPI-PL)	OPI/PE ratio
			INTERIOR	COSTAL		
1d	92225	-	3150	-	-	-
1c	2060-2225	-	3150	-	-	-
1b	1780-2059	-	3150	-	-	-
1a	1505-1779	-	120-150	-	-	-
2	1310-1504	8285	90-119	3150	< 40	0.34
3	1170-1309	736-825	78- 89	120-150	40 to 115	0.34 to 0.7
3	1030-1169	650-725	60- 74	100-119	116 to 100	0.56 to 0.7
4	1030-1169	491-649	50- 59	80- 99	191 to 265	0.76 to 1.0
5	770-1029	402-490	30- 49	50- 59	340 to 385	31.00
6	670- 779	346-420	< 30	40- 59	415 to 615	-
7	6 (87)	678	< 30	6-89	241	-

## 7. Base Station Statistics - Frequency of Climatic Capability for Agriculture Class (%) by Parameter

[illegible]

This table shows complete Climatic Capability for Agriculture evaluations based on yearly values of each parameter (GDD/EGDD, FFP, CWS) for the period of record. The number of years each parameter fell within a particular class is expressed as a percentage of the period of record at the base station.

## 8. Base Station Statistics - Frequency of Climatic Capability for Agriculture Class (%) by Thermal and Moisture Limitation

CLASS	Name:		Name:		Name:	
	Thermal Limitation	Moisture Limitation	Thermal Limitation	Moisture Limitation	Thermal Limitation	Moisture Limitation
1a						
1b						
1a						
1						
2						
3						
4						
4						
5						
7						

This table shows the frequency of occurrence, expressed as a percent, of Climatic Capability for Agriculture classes as determined limitation(s) influencing each individual year for the period of record at the base station.

9. Base Station Statistics-Frequency of Climatic Capability for Agriculture Class (%) by Limitation

CLASS	Name:					Name:					Name:				
	Limitation					Limitation					Limitation				
	A	F	G	E	Y	A	F	G	E	Y	A	F	G	E	
1d															
1c															
1b															
1a															
1															
2															
3															
4															
5															
6															

This table shows the frequency of occurrence, expressed as a percent, of Climatic Capability for Agriculture classes independently limited by thermal (G and/or F) and moisture (A and/or Y) limitations for the period of record at the base station.

#### 10. Abbreviations Used in Legend

- CMD - Climate moisture deficit (PPT-PE is negative)  
CMS - Climate moisture surplus (PPT-PE is positive)  
EGGD - Effective growing degree days  
FFP - Freeze free period  
GDD - Growing degree days  
PE - Potential evapotranspiration  
PPT - Precipitation

## 11. Legend Statistics

Tabular data will be added to the legends as the appropriate data become available.

## 12. Comments

- 1) Dashed lines generally indicate areas of probable cold air flow and pooling which will limit the climatic capability due to lower freeze-free periods.
- 2) An aridity rating (A) is only indicated if it is the limiting factor, however the aridity class may be the same as the thermal class under 2,050 feet elevation.
- 3) The longer days in this region may result in an under-estimation of the climatic capability certain crops that do not have high heat and light intensity requirements.

### 13. References

R.A.B. Technical Paper #1.  
Climatic Capability Classification for Agriculture  
in British Columbia.  
B.C. Ministry of Environment, 1978.

Climatology Unit  
Waste Management Branch  
Ministry of Environment  
Parliament Buildings  
Victoria, B.C. V8V 1X5

Additional climatological maps and reports available from:  
The Map Library  
Assessment and Planning Division  
Ministry of Environment  
Parliament Buildings  
Victoria, B.C. V8V 1X4

## 14. Credits

Mapped by G.E. Cheeseman  
Date mapped July 29, 1983  
Duration of toposynthetic network 1977-80

Normals used 1951-80  
Correlated by \_\_\_\_\_  
Drafted by Cartography Section, Terrestrial Studies B  
Ministry of Environment

Date drafted August 1983  
Revision dates \_\_\_\_\_  
Base map provided by Surveys and Mapping Branch, Ministry of Environment