

Variables	COST PER STATION PER MONTH OF HOURLY DATA (\$)								COST PER STATION PER YEAR OF DAILY DATA (\$)							
	Setup fee of \$48 per station applies to all orders															
	sample	average	vector average	maximum	time of maximum	minimum	time of minimum	total	average	vector average	maximum	time of maximum	minimum	time of minimum	total	
<b>TEMPERATURE AND HUMIDITY</b>																
Air Temperature	2	2		2	2	2	2		2		2	2	2	2		
Relative Humidity	2	2		2	2	2	2		2		2	2	2	2		
Specific Humidity	6	6		6	6	6	6		6		6	6	6	6		
Mixing Ratio	6	6		6	6	6	6		6		6	6	6	6		
Dew Point Temperature	4	4		4	4	4	4		4		4	4	4	4		
Dew Point Depression	4	4		4	4	4	4		4		4	4	4	4		
Wet Bulb Temperature	6	6		6	6	6	6		6		6	6	6	6		
Wet Bulb Depression	6	6		6	6	6	6		6		6	6	6	6		
Saturation Vapor Pressure	2	2		2	2	2	2		2		2	2	2	2		
Actual Vapor Pressure	4	4		4	4	4	4		4		4	4	4	4		
Vapor Pressure Deficit	4	4		4	4	4	4		4		4	4	4	4		
Freeze Duration								2							2	
Leaf Wetness Duration (estimated)								2							2	
<b>DEGREE DAYS</b>																
Heating Degree Days (base 18.3°C)															4	
Cooling Degree Days (base 18.3°C)															4	
Growing Degree Days (specify base if other than 10°C)															4	
Modified Growing Degree Days (10/30°C)															4	
Freezing Degree Days															4	
Stress Degree Days (30°C)															4	
<b>PRECIPITATION</b>																
Rain Plus Snowmelt								2							2	
Precipitation (available during non-freezing conditions)								4							4	
<b>WIND</b>																
Wind Speed	2	2	4	2	2				2	4	2	2				
Wind Direction	2	2	4	2*					2	4	2*	2				
Wind Direction Standard Deviation	2	2**							2**							
u Component Wind	4	4		4					4		4					
v Component Wind	4	4		4					4		4					
Wind Gust	2			2	2						2	2				
Wind Gust Direction	2			2*							2*					
Wind Run								2							2	
<b>TEMPERATURE INDICES</b>																
Wind Chill index	4	4		4		4			4		4		4			
Heat Index	4	4		4		4			4		4		4			
Temperature Humidity Index	4	4		4		4			4		4		4			
Comprehensive Climate Index	8	8		8		8			8		8		8			
Wet Bulb Globe Temperature	12	12		12		12			12		12		12			
<b>EVAPOTRANSPIRATION</b>																
Reference Evapotranspiration								8							8	
Potential Evapotranspiration (for a specified crop)								12							12	
<b>SOIL MOISTURE</b>																
Soil Moisture 5 cm	4	4		4		4			4		4		4			
Soil Moisture 10 cm	4	4		4		4			4		4		4			
Soil Moisture 20 cm	4	4		4		4			4		4		4			
Soil Moisture 50 cm	4	4		4		4			4		4		4			
Soil Moisture 100 cm	4	4		4		4			4		4		4			
Soil Moisture Column								20							20	
<b>SOIL TEMPERATURE</b>																
Soil Temperature 5 cm	2	2		2		2			2		2		2			
Soil Temperature 10 cm	2	2		2		2			2		2		2			
Soil Temperature 20 cm	2	2		2		2			2		2		2			
Soil Temperature 50 cm	2	2		2		2			2		2		2			
Soil Temperature 100 cm	2	2		2		2			2		2		2			
Bare Soil Temperature 10 cm	2	2		2		2			2		2		2			
Thaw Depth (estimated)	12								12		12		12			
Frost Depth (estimated)	12								12		12		12			



# South Dakota Mesonet Custom Data Services Pricing

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<b>SUN</b>																
Solar Radiation	2	2		2		2		2	2		2		2		2	
Clear Sky Solar Radiation	8	8		8		8		8	8		8		8		8	
Extraterrestrial Solar Radiation	4	4		2		4		4	4		4		4		4	
Relative Solar Radiation	10	10		10		10		10	10		10		10		10	
Sunshine Duration	10	10		10		10		10	10		10		10		10	
Relative Sunshine Duration	10	10		10		10		10	10		10		10		10	
Cloud Cover (available during daylight hours)	10	10		10		10		10	10		10		10		10	
<b>PRESSURE</b>																
Station Pressure	2	2		2	2	2	2		2		2	2	2	2		
Altimeter Setting	4	4		4	4	4	4		4		4	4	4	4		
Sea Level Pressure	6	6		6	6	6	6		6		6	6	6	6		
<b>AIR QUALITY</b>																
Vertical Temperature Difference (3 m - 1 m)	4	4														
Wind Speed 1 m (estimated)	6	6	8	6	6				6	8	6	6				
Wind Speed 10 m (estimated)	6	6	8	6	6				6	8	6	6				
Pasquill-Gifford Stability Category	6	6							6							
<b>FIRE WEATHER</b>																
Wind Speed 20 ft (estimated)	6	6	8	6	6				6	8	6	6				
<b>NORMALS</b>																
Air Temperature									2		2		2			
Precipitation															4	
Heating Degree Days									4							
Cooling Degree Days									4							
Growing Degree Days (specify base if other than 10°C)									4							
Modified Growing Degree Days (10/30°C)									4							
Freezing Degree Days									4							
Stress Degree Days									4							

\*Direction at time of maximum speed or gust  
 \*\*Standard deviation of wind direction is root mean square

**EXAMPLES OF OTHER TYPES OF ANALYSIS AVAILABLE:**

- 5-min Data Analysis
- Serially-Complete Data
- Temperature Inversion Analysis
- Custom Degree Day Calculations
- Dates of Spring or Fall Frost/Freeze/Hard Freeze
- Duration Above/Below a Specified Value
- Sunrise, Sunset, Daylight Hours

**NOTES:**

All data is quality-controlled by the South Dakota Mesonet Research Climatologist.  
 Limited daily data requests (not quality-controlled) are available for free at [climate.sdstate.edu/request/daily](https://climate.sdstate.edu/request/daily)  
 Pesticide applicator records are available at the SD Mesonet Spray Tool: [mesonet.sdstate.edu/spray](https://mesonet.sdstate.edu/spray).  
 Other units available on request.  
 Terms of Use (<https://mesonet.sdstate.edu/legal>) apply to all data requests.  
 Data should be cited South Dakota Mesonet, South Dakota State University. (2020). *South Dakota Mesonet Database* [unpublished data].