

# Soil Moisture Sensor Conversion Chart

## Watermark-Centibar

Hastings, Butler, Crete Silt Loam and Crete, Wymore Silty Clay Loam Soils

At Field Capacity 2.20 in/ft of Total Water, 1.1 in/ft Plant Readily Available Water

Meter Reading Centibars	% Total Depletion	Depletion in inches per foot	1st Foot	2nd Foot	3rd Foot	Management Zone
0		No Depletion	_____	_____	_____	<b>High Drainage Water Zone</b> Top soil layer may get this wet from rain or irrigation.
10		(Excess	_____	_____	_____	
20		Gravitational	_____	_____	_____	
30		Water)	_____	_____	_____	
33	0	0.00				<b>Field Capacity (1.1 in/ft plant readily available)</b>
40	7	0.16	_____	_____	_____	<b>Rain Storage Zone</b> Keep at least a one foot layer of soil dryer than this to store rain.
50	15	0.32	_____	_____	_____	
60	21	0.47	_____	_____	_____	
70	27	0.59	_____	_____	_____	<b>Desired Water Zone</b> Keep the deeper soil layers in this range. The goal is to dry out the lower layers throughout the summer and be in the low water zone by crop maturity. Irrigate during this moisture range.
80	32	0.70	_____	_____	_____	
<b>*90</b>	35	0.78	_____	_____	_____	
100	37	0.85	_____	_____	_____	
110	40	0.89	_____	_____	_____	
120	41	0.91	_____	_____	_____	
130	43	0.94	_____	_____	_____	
140	44	0.97	_____	_____	_____	
150	49	1.08	_____	_____	_____	<b>Low Water Zone</b> Keep at least a one foot layer of soil wetter than this. Crop stress likely, more than 50% water depleted.
200	55	1.20	_____	_____	_____	

\*Average meter reading of 90 in root zone is the ideal time to irrigate. Use average of the top two sensors prior to reproductive stages (tassel and flower) and average of the top three sensors after reproductive stages.