

Table 20 Soil (Moisture)

	DATA OPTION 1: Radarsat, TerrsarX or ALOS Palsar
<i>Spatial Dimensions</i>	
Area to cover	Up to 3600 km ²
Mapping unit	5 m -60 m
Positional accuracy	Dependent on geo-referencing process
<i>Temporal Dimensions</i>	
When	Approx 11 am
How often	Minimum every 4 days
Variable to map	Soil moisture
Environmental Restrictions	Scale to map Incidence angle/topography Vegetation
Processing technique (Output)	Radar data processing and calibration Correlation analyses Soil moisture estimates
Resources – Hardware and Software	PC Image processing software with radar image analysis capabilities, including sub- pixel mapping techniques.
Resource – Personnel	Trained in radar data processing. Knowledge of area to be mapped
References: Note these are some example references	Biftu et al. (1999) Wickel et al. (2001)

Biftu, G. and Gan, T. (1999). "Retrieving near-surface soil moisture from Radarsat SAR data." Water Resources Research, 35(5), 1569-1579.

Wickel, A., Jackson, T. and Wood, E. (2001). "Multitemporal monitoring of soil moisture with RADARSAT SAR during the 1997 Southern Great Plains hydrology experiment." International Journal of Remote Sensing, 22(8), 1571-1583.