



SOIL SCOUT RANGE ESTIMATION TABLE



Approximate Maximum Ranges (*yards / metres*): USGA Sand

Receiving Antenna type and height

Soil moisture	Depth	Omnidirectional Antenna				Directive Yagi Antenna 90°			
		3 ft	7 ft	10 ft	17 ft	3 ft	7 ft	10 ft	17 ft
		Dry	4 "	150	290	340	440	150	400
12 "	140		270	320	410	140	370	450	570
24 "	130		240	290	370	130	330	410	520
Wet	4 "	140	270	320	410	140	370	450	570
	12 "	120	220	270	330	120	300	370	480
	24 "	80	160	190	250	80	220	280	360

Receiving Antenna type and height

Soil moisture	Depth	Omnidirectional Antenna				Directive Yagi Antenna 90°			
		1 m	2 m	3 m	5 m	1 m	2 m	3 m	5 m
		Dry	10 cm	140	270	320	410	140	370
30 cm	130		250	300	380	130	340	420	530
60 cm	120		220	270	340	120	310	380	480
Wet	10 cm	130	250	300	380	130	340	420	530
	30 cm	110	210	250	310	110	280	340	440
	60 cm	80	150	180	230	80	210	260	330

Note:

- Estimates are presented for dry soil (20% volumetric moisture) and wet soil (50% vol. moist.)
- Environmental conditions may reduce range temporarily (e.g. wet layer on dry soil or *vice versa*)
- Tree(s) and/or shrubs between Scout and Base may reduce the range by 50%
- In urban environments, static radio noise may hamper receiver sensitivity and decrease range by 10-20%
- Saline soils (4 dS/m and higher) will attenuate signals and lower achievable depth in wet conditions

Disclaimer:

The information in this table is provided as an indicative planning guide, and is not a guarantee or warranty of performance under the stated conditions. Soil Scout Oy accepts no responsibility for errors or the inaccuracy of the information herein.