

COMPARING CURRENT SOIL MOISTURE MONITORING SYSTEMS

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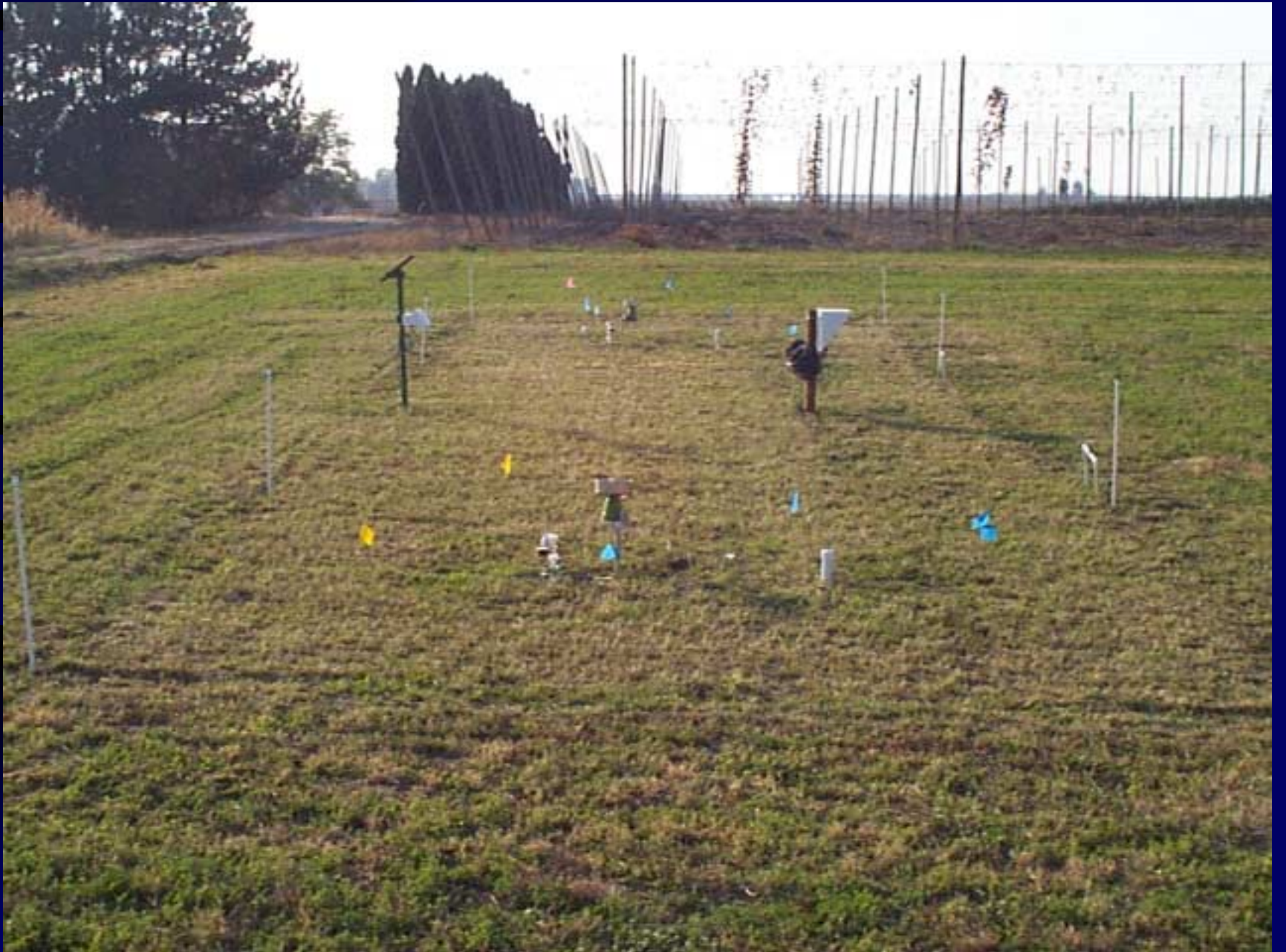
WASHINGTON STATE UNIVERSITY

BENEFITS TO CONSIDER S

- INCREASE YIELD
- IMPROVE QUALITY
- CONSERVE WATER
- SAVE ENERGY
- DECREASE FERTILIZER
- REDUCE NON-POINT POLLUTION

FACTORS TO CONSIDER

- **ACCURACY**
- **INITIAL COST**
- **SET-UP REQUIREMENTS**
- **ROUTINE READINGS**
- **INTERPRETATION OF READINGS**
- **COMPATABLE w/ FARM PRACTICES**
- **AMORITIZED COST**



RELATIVE ACCURACY

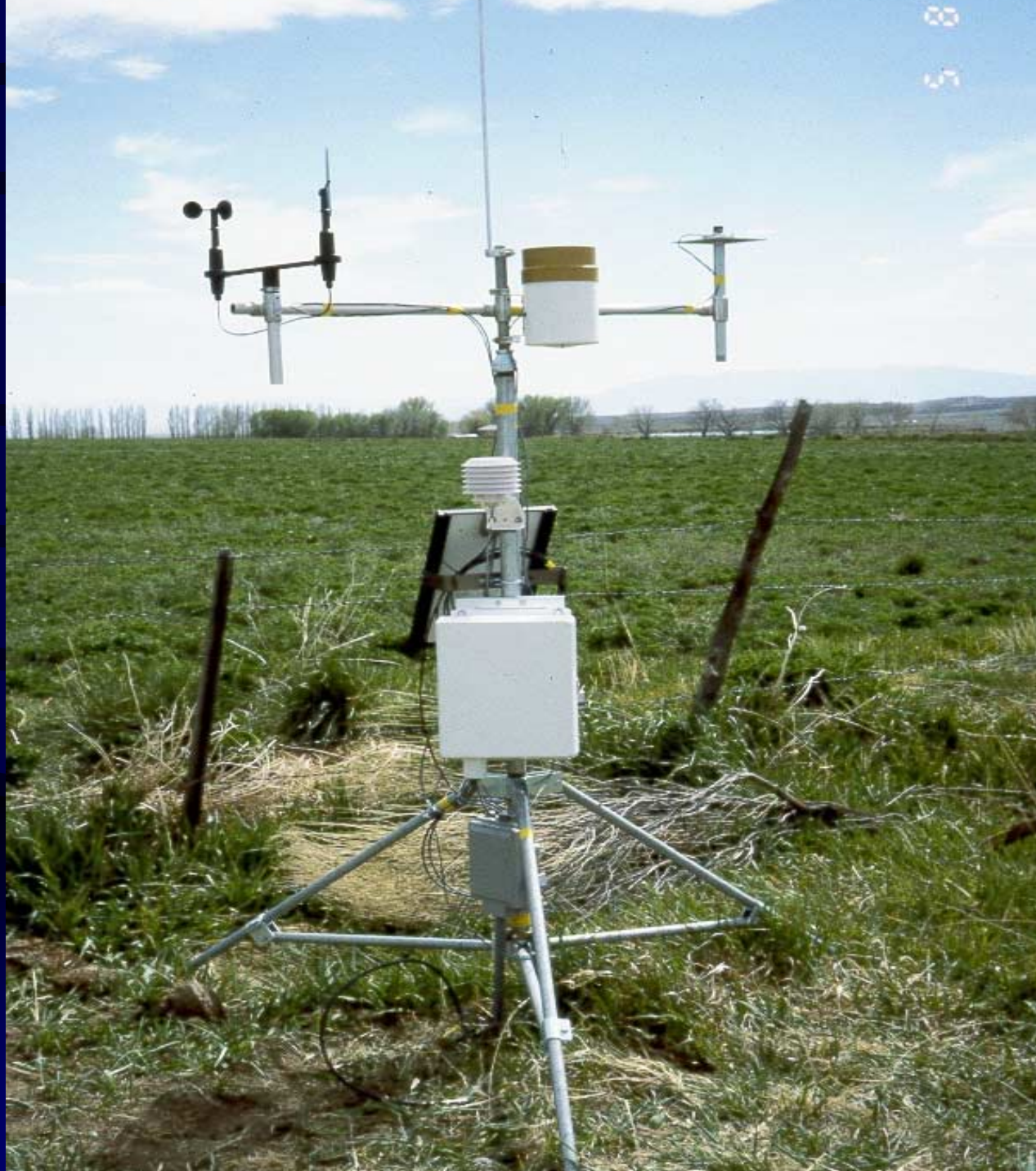
- COMPARED TO IRRIGATION





RELATIVE ACCURACY

- COMPARED TO CROP WATER USE



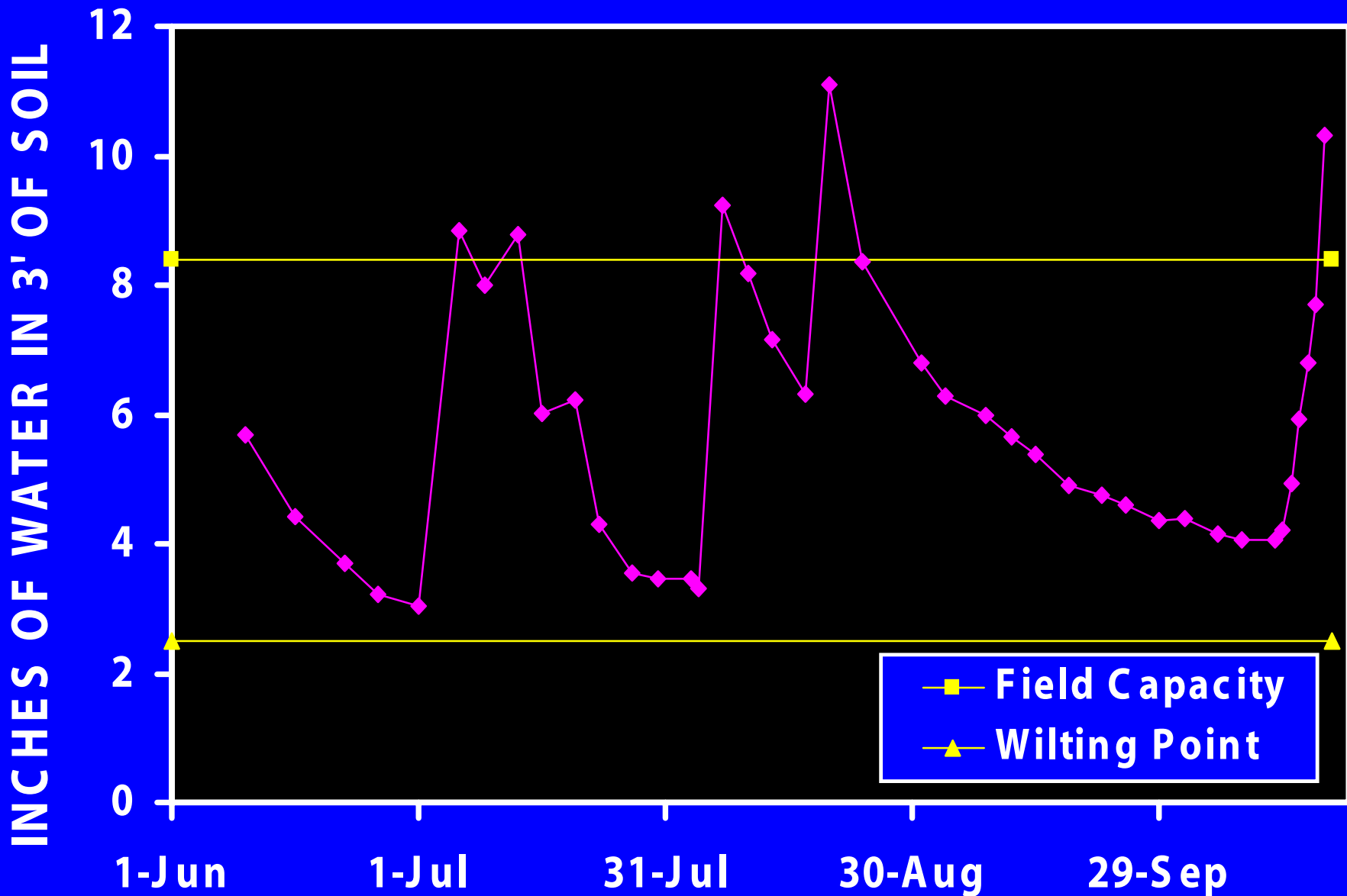
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RELATIVE ACCURACY

- COMPARED TO A STANDARD



NEUTRON PROBE (pink), East Plot



NEUTRON PROBE

	IR RATIO	ET RATIO	CR R2
EAST	0.86	0.86	1.0
WEST	0.78	0.87	1.0

AVAILABLE

TOOLS

AQUA-TEL

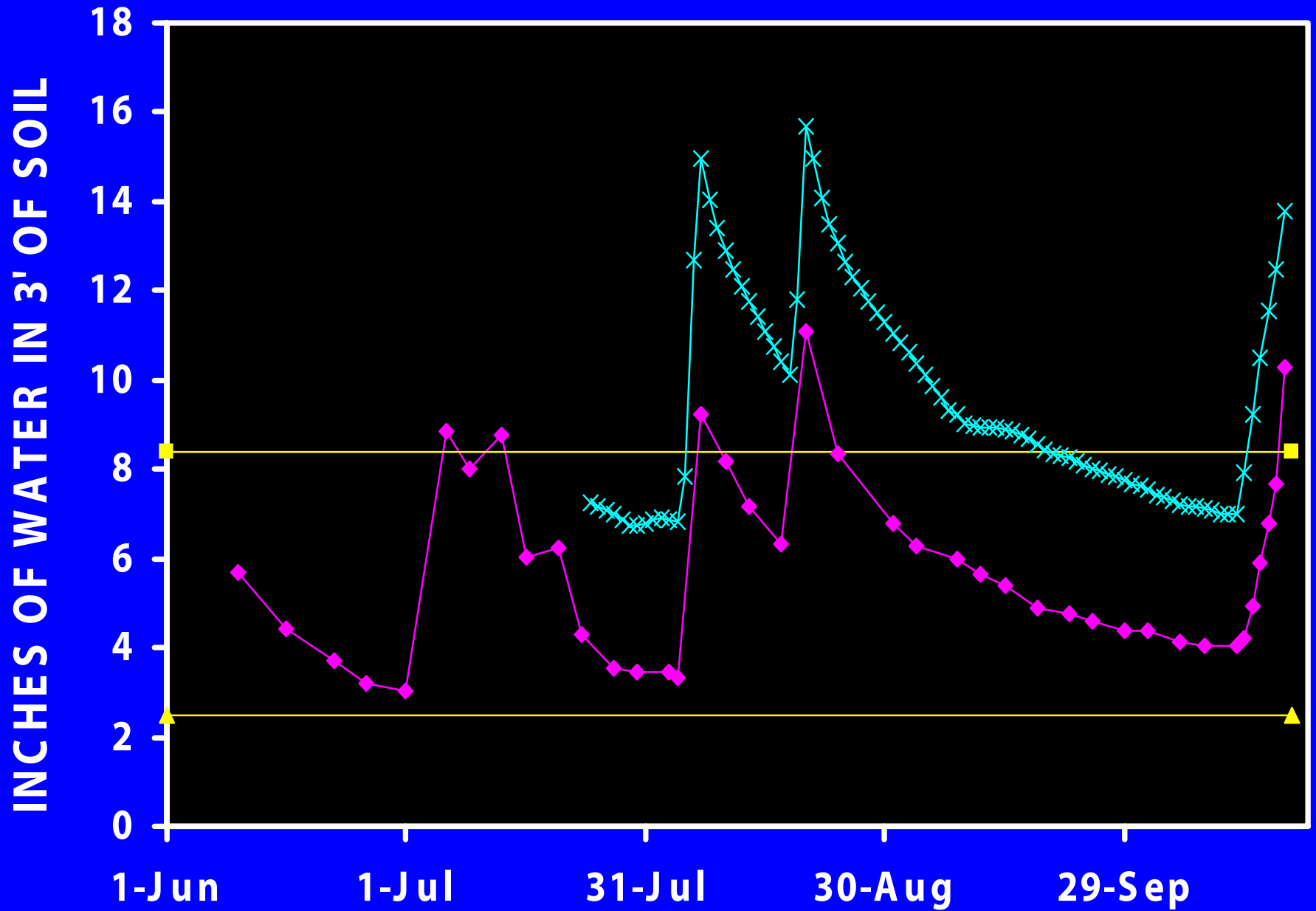
AQUA-TEL94
AUTOMATIC INC.
1000 W. 10TH ST. SUITE 100
DENVER, CO 80202







ENVIROSCAN (blue), East Plot

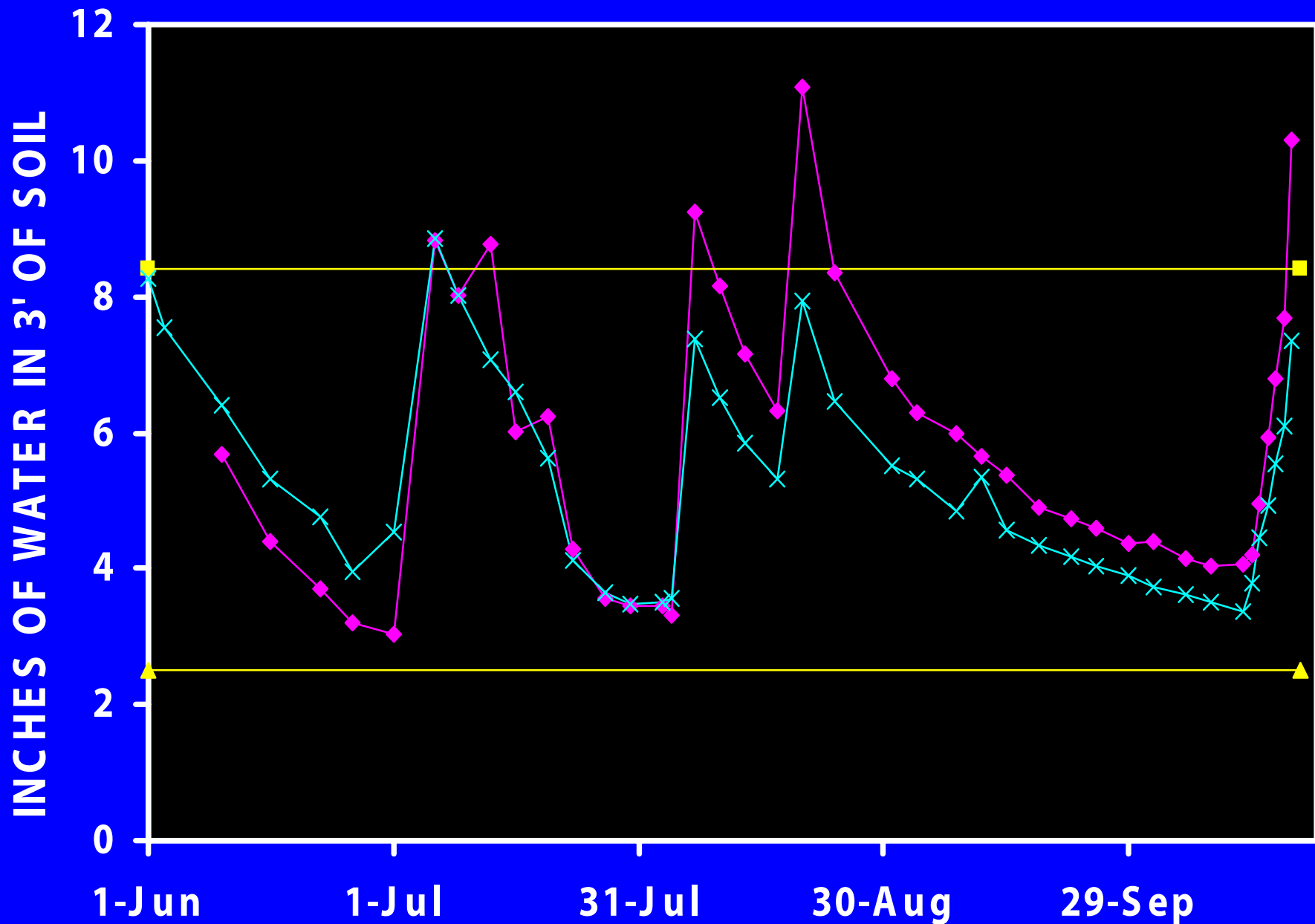


EnviroSCAN

	IR RATIO	ET RATIO	CR R2
EAST	1.13	1.14	0.97
WEST	0.88	0.94	0.96



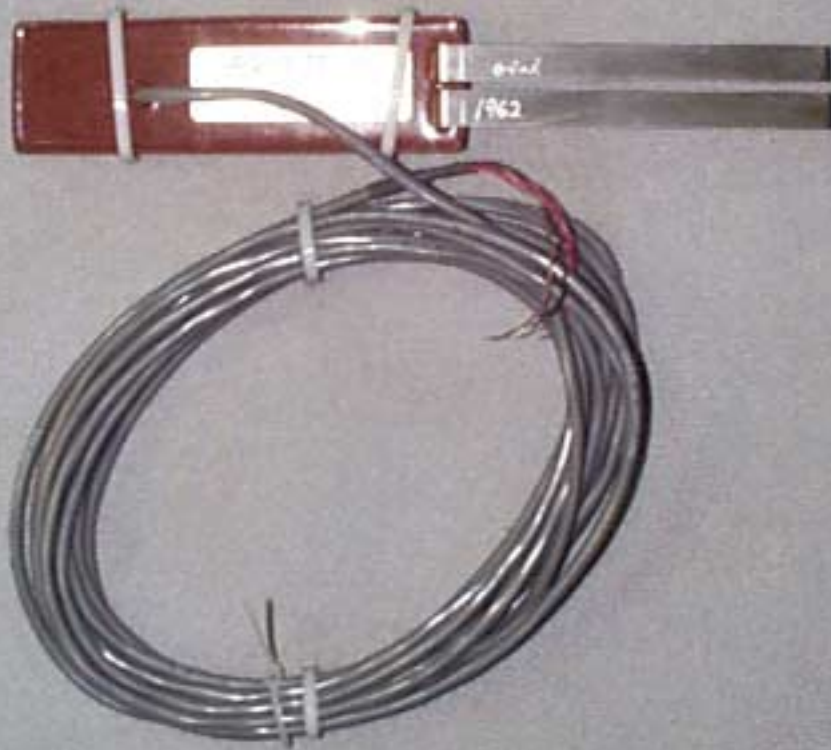
TROXLER SENTRY (blue), East Plot



TROXLER SENTRY

	IR RATIO	ET RATIO	CR R2
EAST	0.58	0.67	0.82
WEST	0.57	0.63	0.82

AQUA-TEL



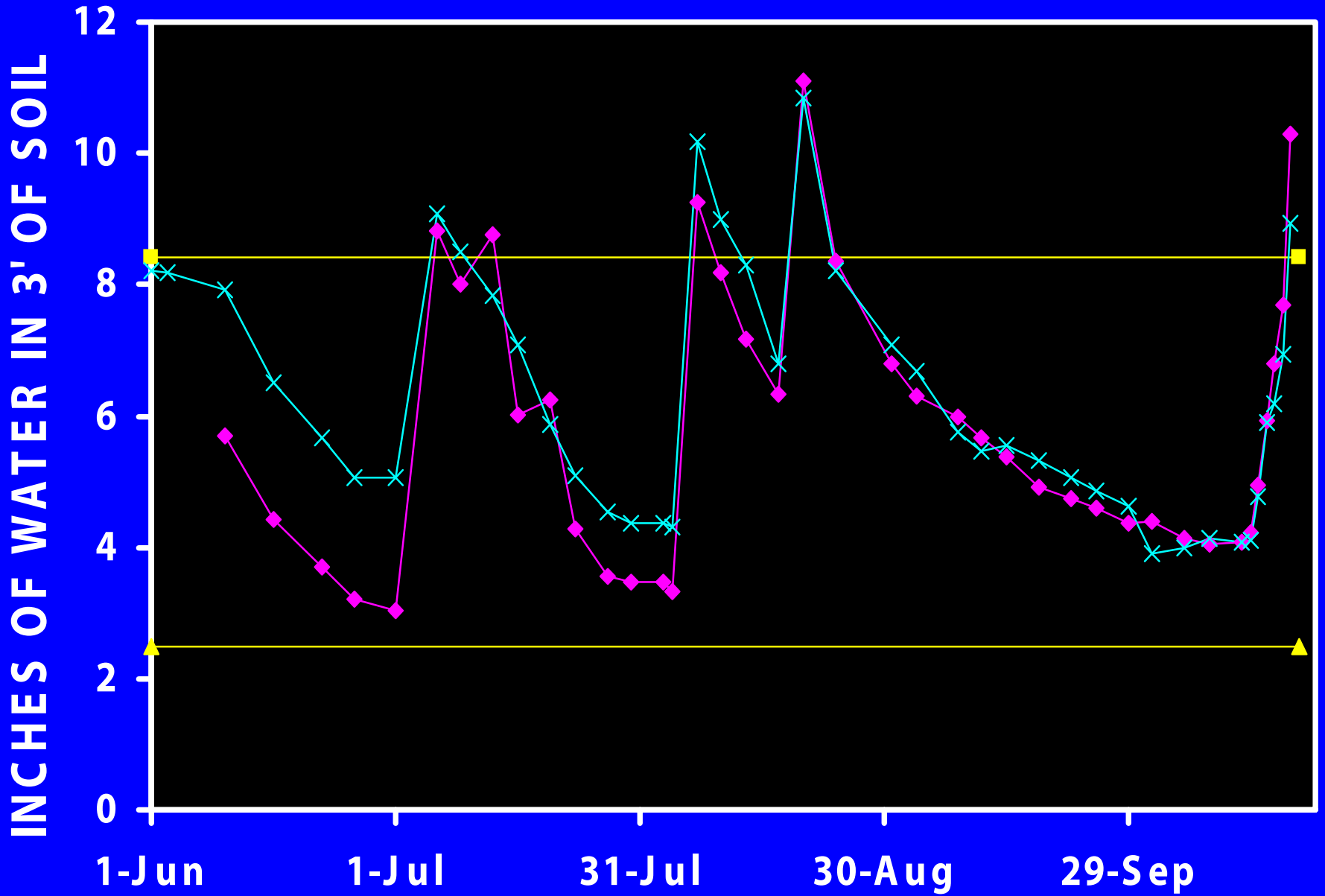
WAT

2A





AQUA-TEL (blue), East Plot



AQUA-TEL

	IR RATIO	ET RATIO	CR R2
EAST	0.71	0.81	0.79
WEST	0.45	0.43	0.65

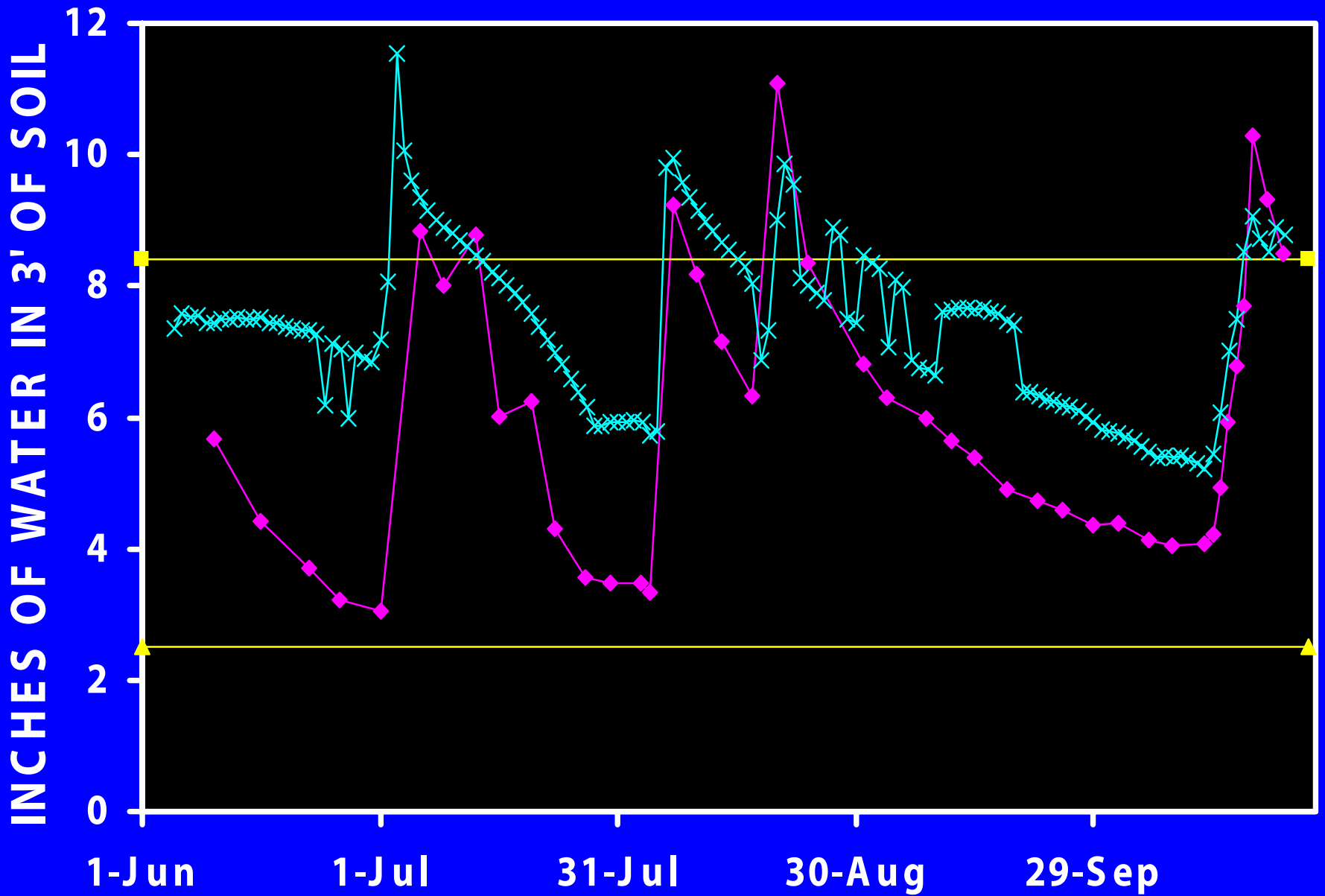


AQUA FLEX





AQUAFLEX (blue), East Plot



AQUA-FLEX

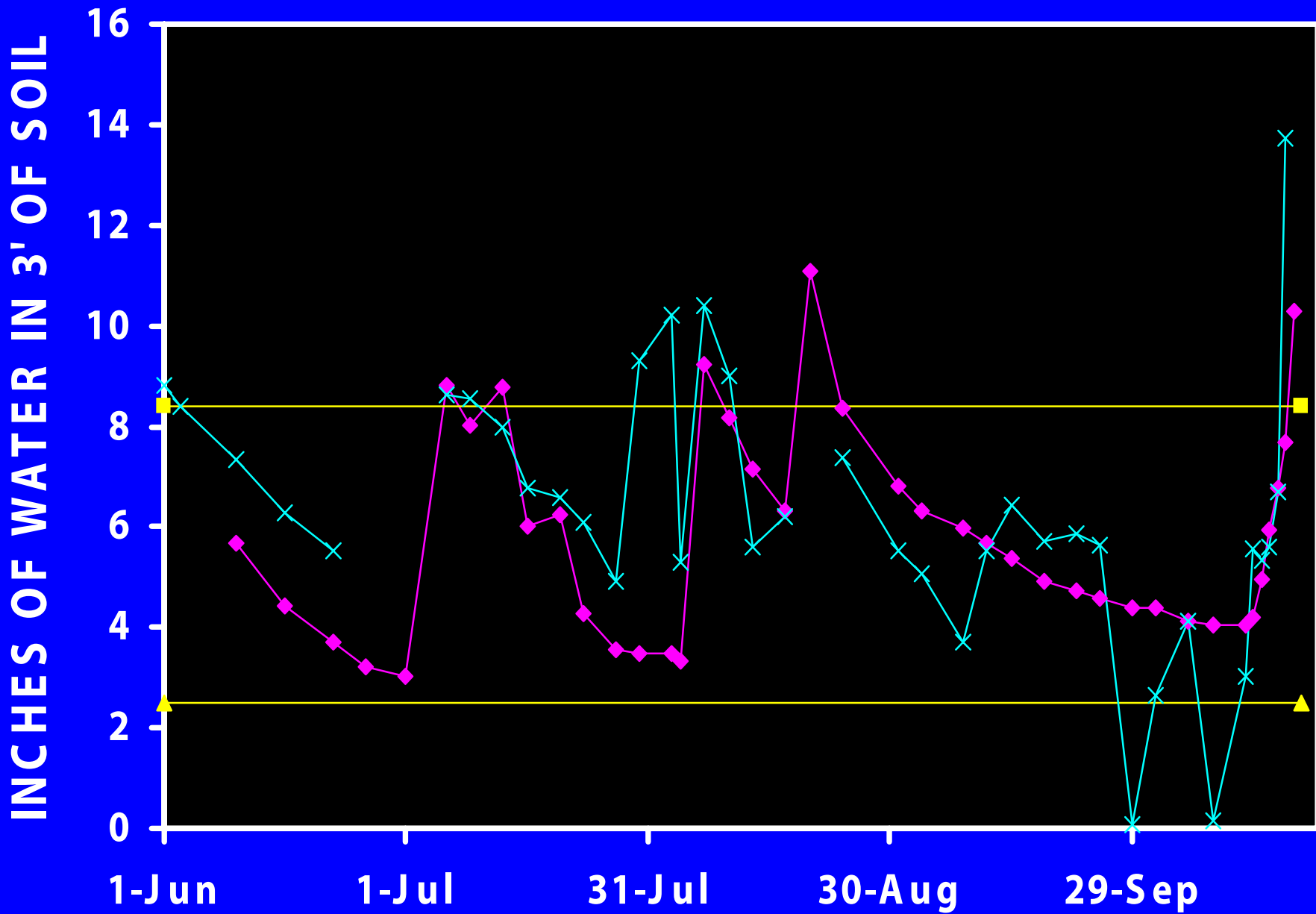
	IR RATIO	ET RATIO	CR R2
EAST	0.77	0.45	0.71
WEST	0.38	0.23	0.65

TDR





TDR (blue), East Plot



TDR

	IR RATIO	ET RATIO	CR R2
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EAST	?	?	0.37
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WEST	?	?	0.57
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WATERMARK

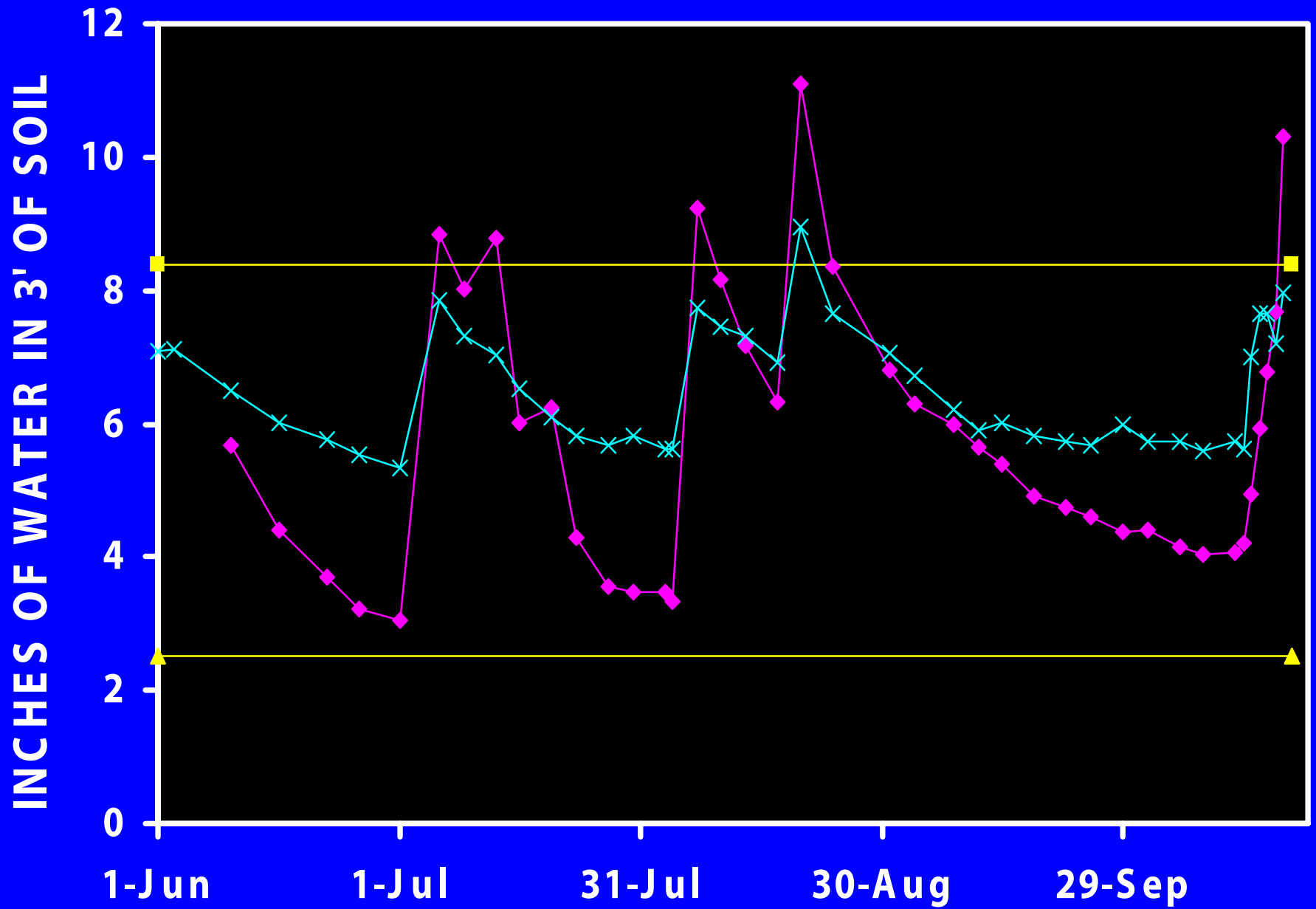


IRROMETER





TENSIOMETER (blue), East Plot



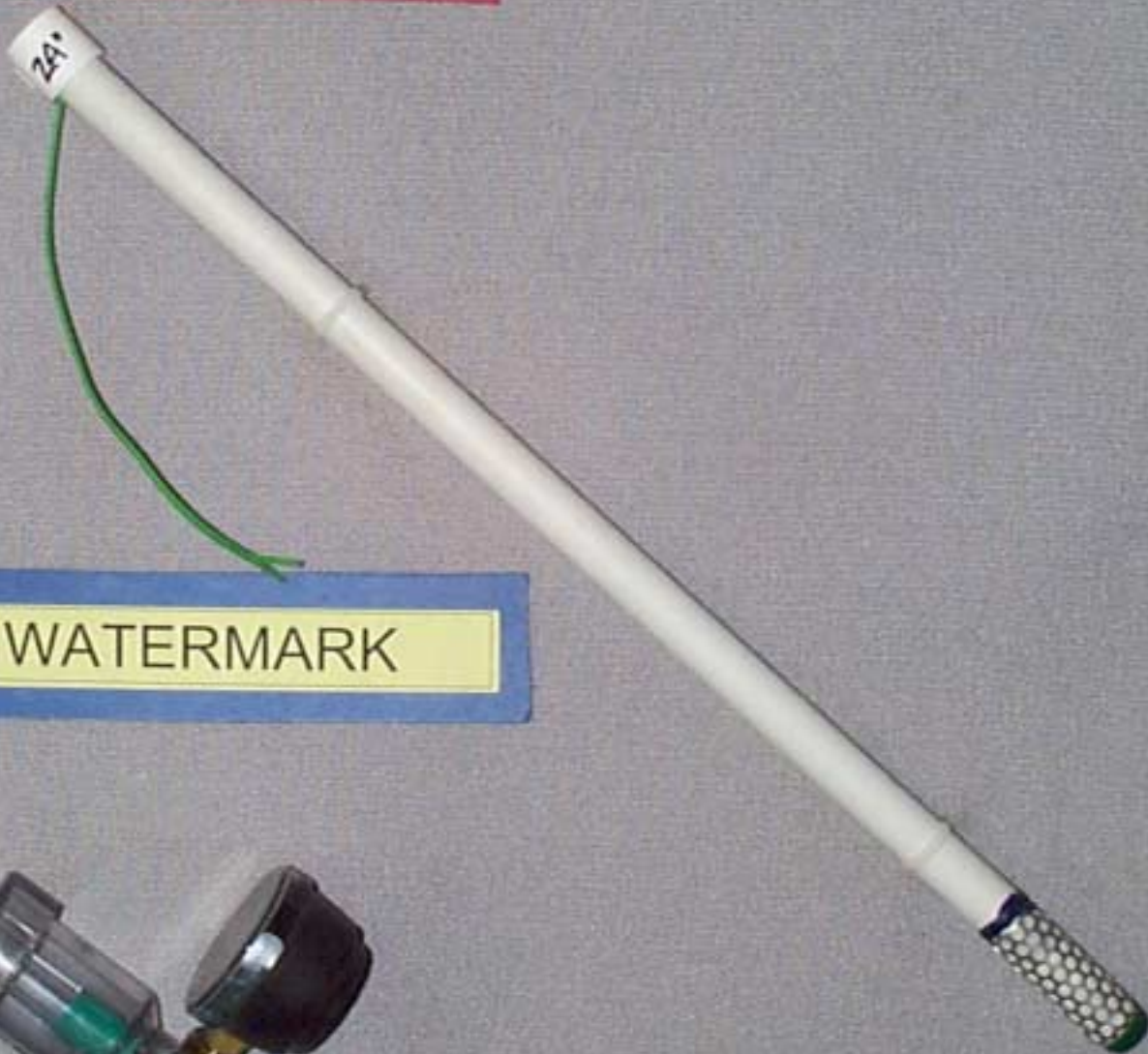
TENSIOMETER

	IR RATIO	ET RATIO	CR R2
EAST	0.40	0.42	0.86
WEST	0.39	0.34	0.68

ACOSTA.

29.

WATERMARK





WATERMARK

	IR RATIO	ET RATIO	CR R2
EAST	0.28	0.59	0.52
WEST	0.10	0.60	0.12



CONCLUSIONS

- **PREDICTIVE SCHEDULING**
- **REACTIVE SCHEDULING**
- **CALIBRATION WILL IMPROVE**