irrigation toolbox series

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Surface irrigation facts vs fiction

Perception	Facts	Facts	
(1) Old, wasteful and inefficient	 Precision Surface Irrigation > 90% efficient Cheapest to build, cheapest to operate CP LM \$25 - \$40/ML just to pressurise 		
(2) Doesn't really matter how long it takes to irrigate. The clay only takes so much water.	 Not quite – the rate of infiltration slows dramatically but infiltration still continues while the water is on the soil. Opportunity Time 		
(3) Should stop the siphons before the furrows run through – There is plenty of water still coming down.	Not quite. Long runs and high flows rates need to run tailwater.		
	0.3m H	0.3m Head	
(4) Siphon size doesn't make much difference	Size (mm) 50 63 75	Flow (l/sec) 1.9 3.3 5.0	
	63 mm S	63 mm Siphon	
(5) Head over field doesn't make much difference	Head (m) 0.1 0.2 0.3	Flow (I/sec) 1.9 2.7 3.3	
(6) Over irrigation is cheap insurance for good crop yield	 Not any more Cost of water Availability of water Nutrients flushed below root zone. 		

Source: Jim Purcell, Aquatech Consulting, Narrabri

