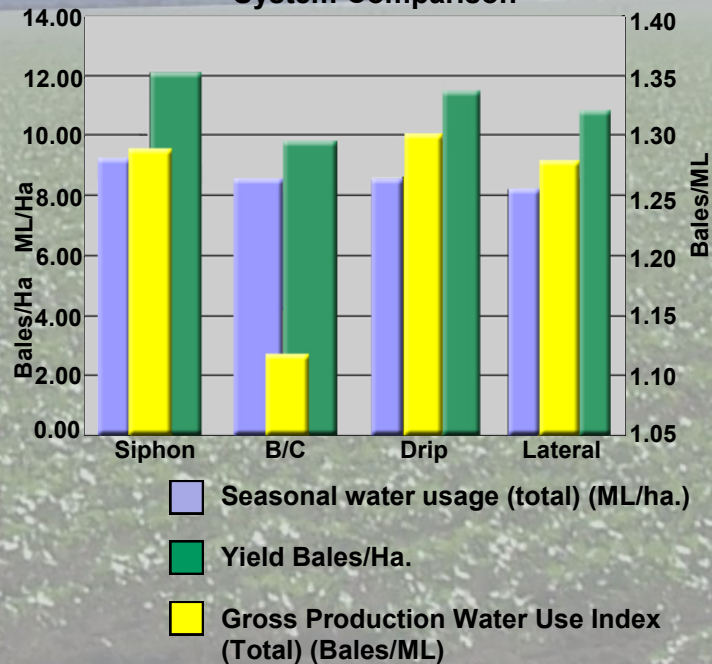


Lessons Learnt:

1. A significant capital consideration needs to be made. Due to this water security is important to ensure the investment has the opportunity to generate income.
2. Uniform soil type is very important. As with all irrigation systems it is important to try to isolate specific soil types and irrigate accordingly. This is especially relevant with the lateral irrigators to maximize water use efficiency and ensure a uniform irrigation.
3. Ensure the machine is applying as much water as is intended. This means getting the machine calibrated. Generally the installer will program the machine assuming it is reaching full application potential. Many factors can cause this to be incorrect.
4. Ensure the machine has the ability to apply enough water in peak season. This may mean adjusting the run lengths to increase application potential.

System Comparison



"Improving irrigation in the Australian cotton industry"

GWYDIR VALLEY

IRRIGATORS ASSOCIATION
INCORPORATED



Australian Government
National Water Commission
Raising National Water Standards Program

"Improving irrigation in the Australian cotton industry"

GWYDIR VALLEY

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Lateral Move



This information has been prepared by the Gwydir Valley Irrigators Association (GVIA) to help growers make more educated decisions on their irrigation practices and in turn maximise their productivity per megalitre.

GVIA aimed to provide accurate comparative information by conducting an on farm trial on the water use efficiencies of four relatively common irrigation systems used across Australia and around the world.

The four systems that were trialed were lateral move, bankless channel, drip irrigation and furrow/siphon irrigation. Furrow/siphon irrigation was also recorded as a control on which to benchmark results.

The trials were undertaken in conjunction with Sundown Pastoral Company at "Keytah" 45km west of Moree NSW.

For a full report on trial results contact:

Gwydir Valley
Irrigators Association Inc.

Chairman: Ian Cush CEO: Michael Murray

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Lateral L3:

The field under lateral irrigation had a poor start to the season but the fickle stand filled out well yielding quite satisfactorily. Mist nozzles were used for establishment. Once the canopy began to fill bubblers were used to minimise evaporation and apply water directly to the base of the plant.

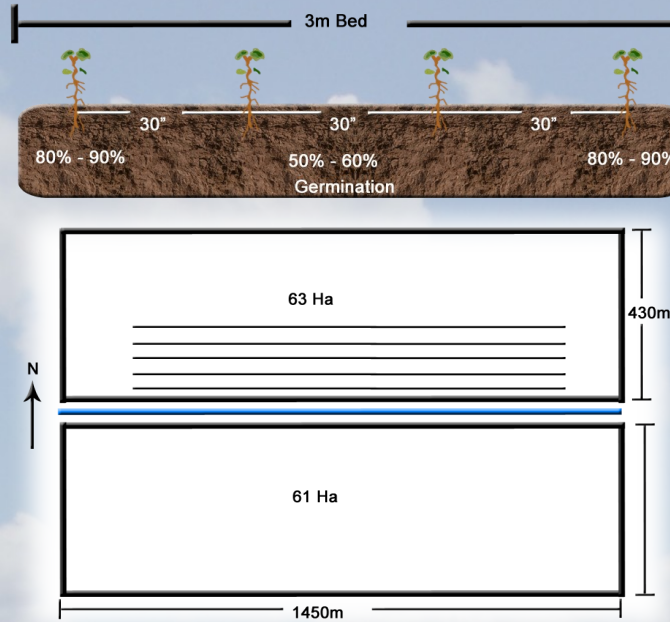


Technical Information:

Area:	124 Ha
Bed configuration:	3m
Plant spacing:	30"
Pressurizing cost:	38.65L (151L/Ha@\$1.30) \$196/Ha
Installation cost:	\$4000 /Ha (System dependent)
Monitoring method:	Total water on through in-line meter
Sowing date:	1/10/2009
Picking date:	3/05/2010
Applied water per hectare:	3.9 ML/Ha
Yield:	10.86 bales/Ha

Field Layout:

3m Beds



Irrigation dates and water applied:

	Water On (mm)	Water Off (mm)	TOTAL ML	TOTAL ML / HA
18/11/09	30	-	37.2	0.3
11/12/09	40	-	49.6	0.4
19/12/09	40	-	49.6	0.4
12/1/10	40	-	49.6	0.4
19/1/10	40	-	49.6	0.4
23/1/10	40	-	49.6	0.4
28/1/10	40	-	49.6	0.4
4/2/10	40	-	49.6	0.4
22/2/10	40	-	49.6	0.4
15/3/10	40	-	49.6	0.4
Total for season			483.6	3.9

In-season Considerations

Germination:

- Weak start to season with below average germination.
- Concern seed was sown too deep; cold snap after sowing; water did not completely infiltrate into the beds.
- Plant lines on the edge of the bed emerged better than in the centre.

Irrigation due to sparse germination:

- With sparse germination early season water requirements far less than other systems.
- As stand filled requirements matched other systems.
- Final irrigation much later than other systems.

Management:

- The 'Keytah' team has had 3-4 years experience with lateral move and is still building knowledge base.
- Yields from lateral move were strong but better results thought to be possible.