

Alfalfa grown on Drip vs Flood irrigation



Applied Irrigation Water

Applied irrigation water quantity and cost differences for 75-acre field, using average water cost of \$100 /ac-ft in one year

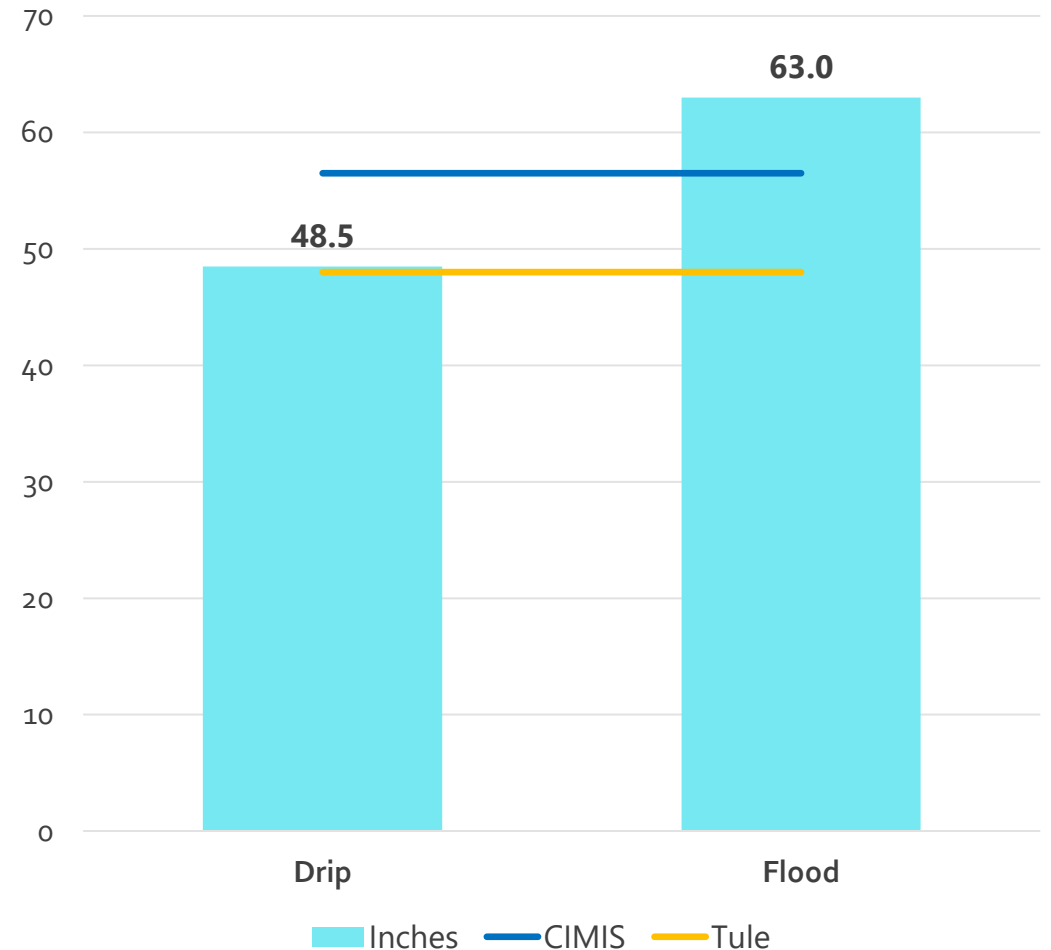
Applied Water in acre-feet

Drip / ac	Flood / ac	Diff. / ac	Diff. on 75 ac
4.04	5.25	1.21	90.63

Applied Water cost (using avg cost of \$100 / ac-ft)

Drip / ac	Flood / ac	Diff. / ac	Diff. on 75 ac
\$404.17	\$525.00	\$121.83	\$9062.5

Applied inches per acre



Yield

In calculations below, hay price of \$230 per ton is used
All yields are adjusted to 90% dry matter.
In a year, on average there are 2 green-chop cuttings.

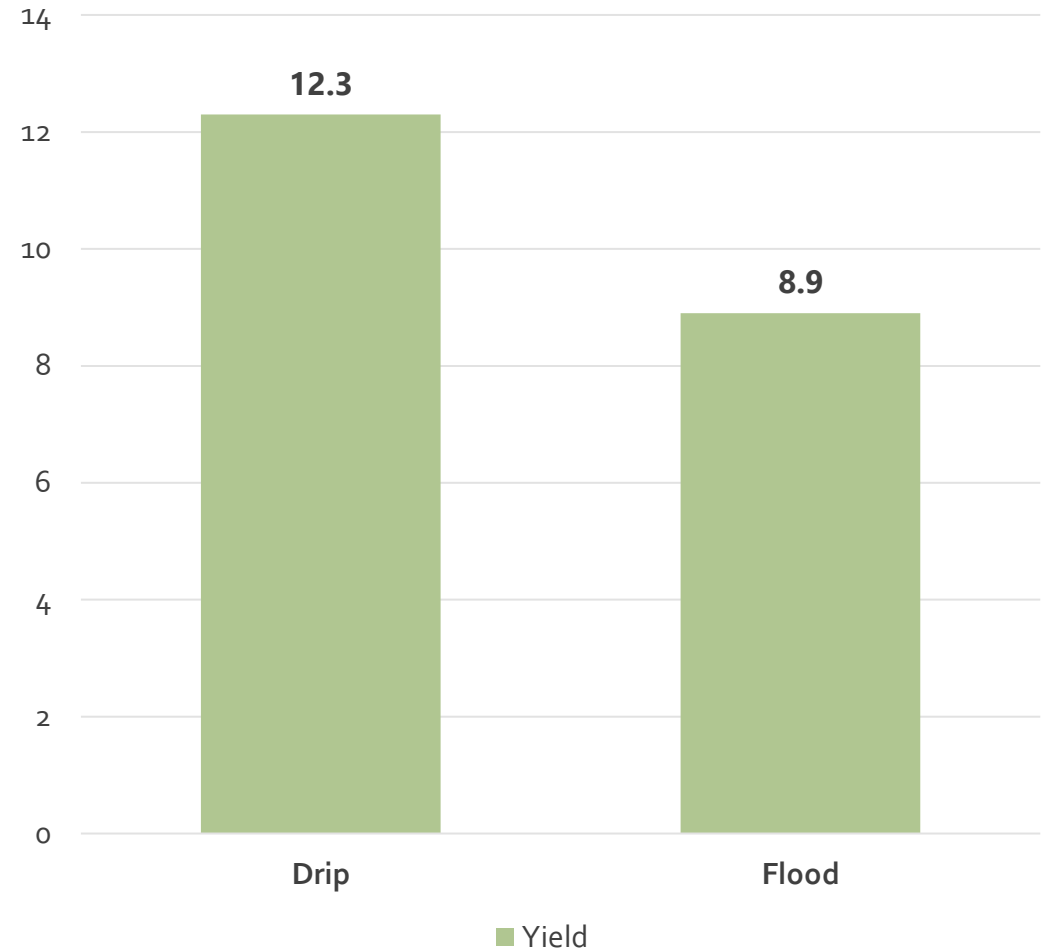
Harvested tons

Drip / ac	Flood / ac	Diff. / ac	Diff. on 75 ac
12.3	8.9	3.4	255

Yield value (using cost of \$230 / ton)

Drip / ac	Flood / ac	Diff. / ac	Diff. on 75 ac
\$2,829.00	\$2,047.00	\$782.00	\$58,650.00

Harvested tons per acre

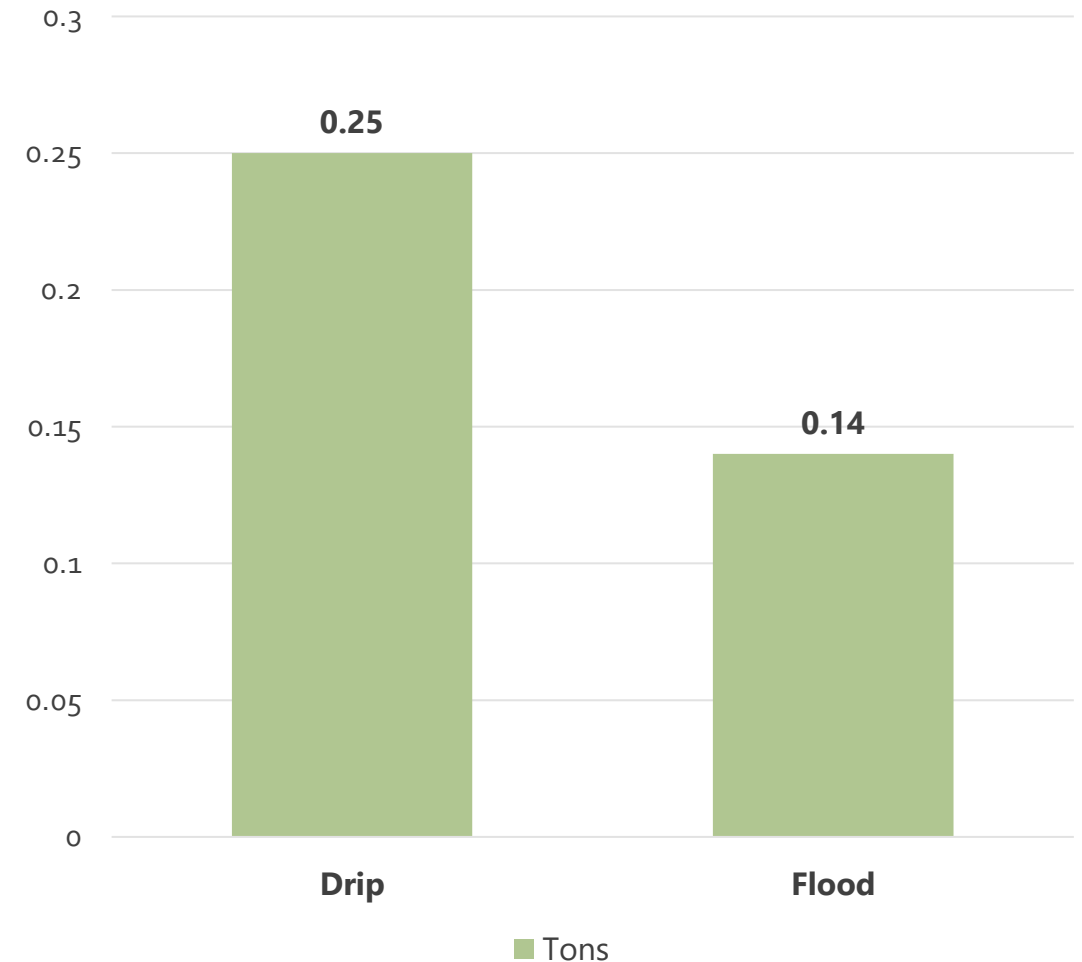


Irrigations water efficiency and return increase

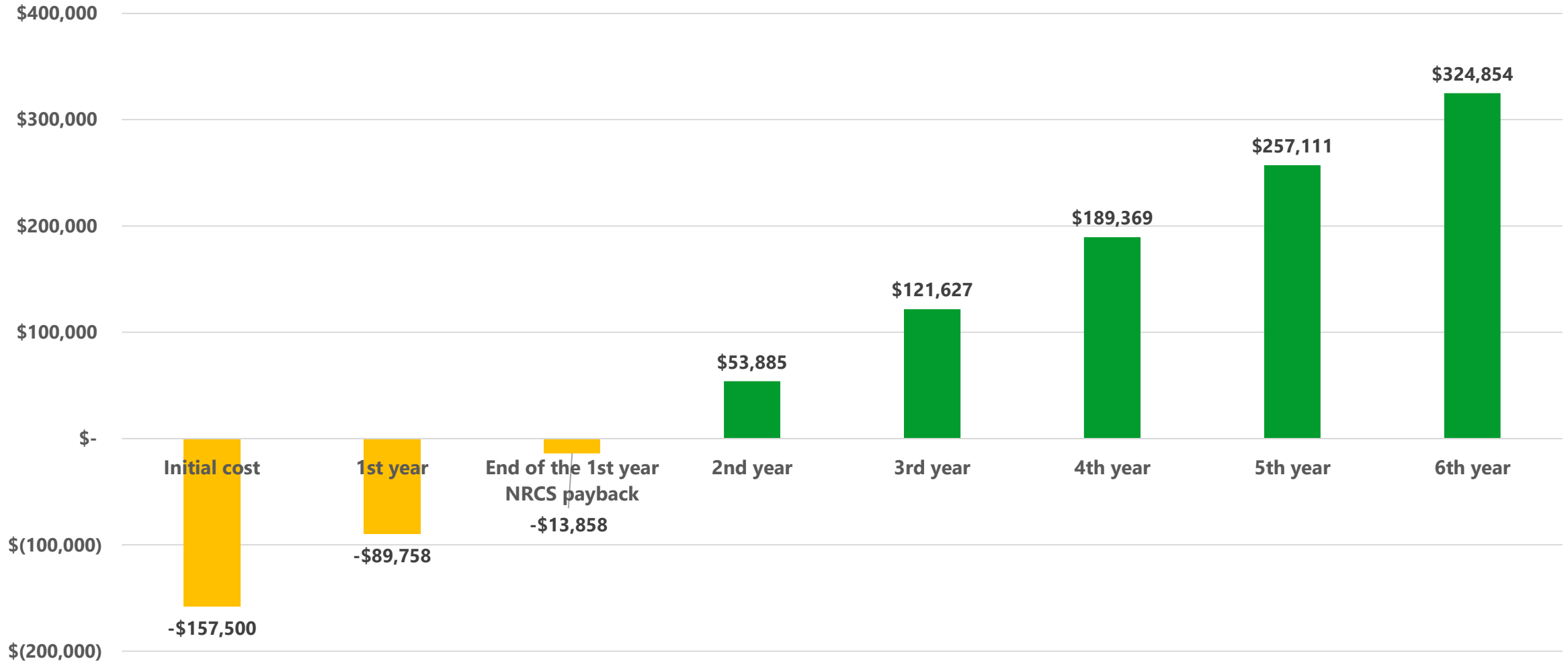
Return increase with drip irrigation, in one year

	Formula	Total
Water savings	1.21 ac-ft x \$100	\$121.23
Yield increase	3.4 tons x \$230	\$782.00
	Per acre:	\$903.23
	Per 75-acre field:	\$67,742.25

Harvested tons per water inch applied



ROI for 75-acre alfalfa drip field with NRCS cost share of \$1,012 per acre



Pros and Cons going with drip irrigation system

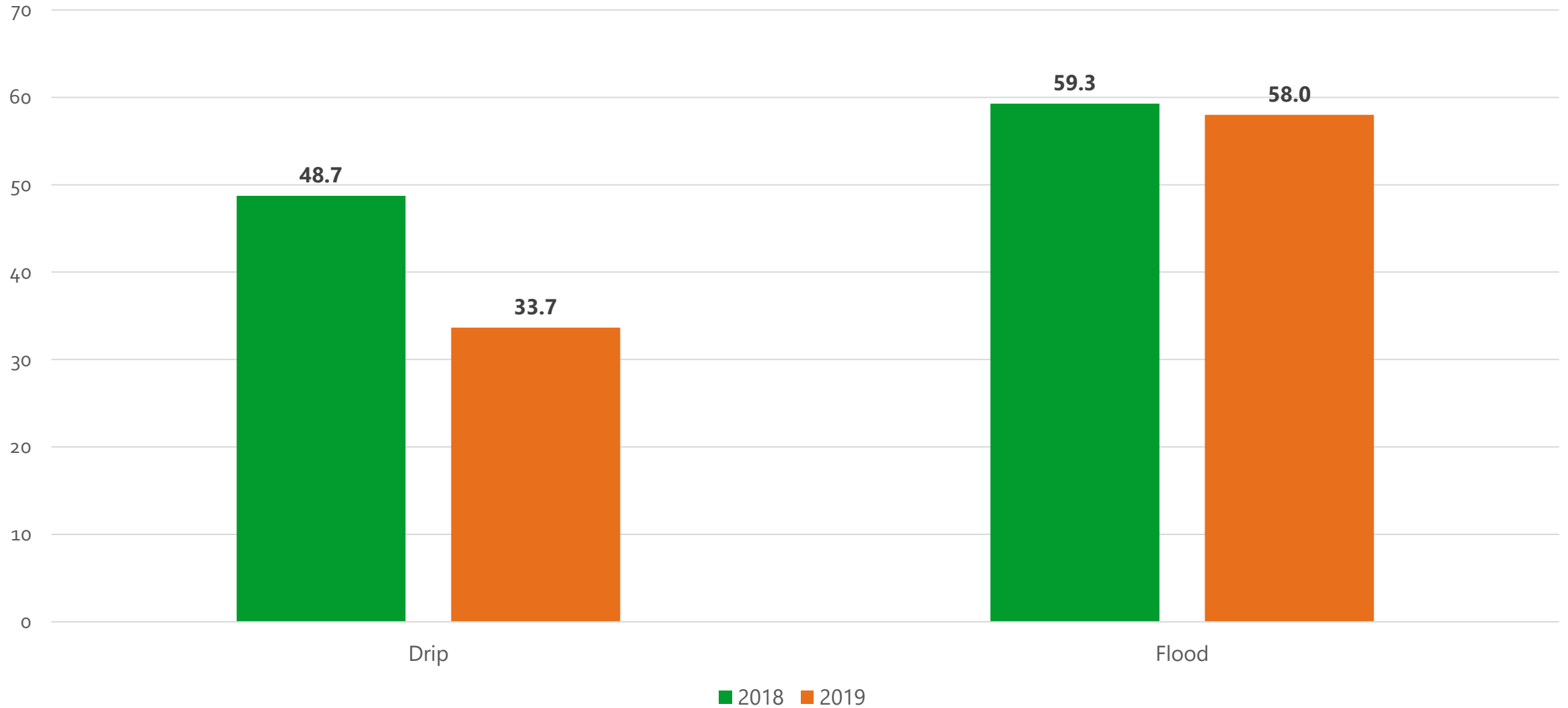
Pros

- » Increased yields
- » More efficient water usage
- » Field don't need to be leveled/lasered prior planting
- » Very little herbicide spays required
- » Healthier stand
- » Longevity (6+ years)
- » Easy to operate
- » No return water
- » No standing water that could potentially harm alfalfa stand in hot weather

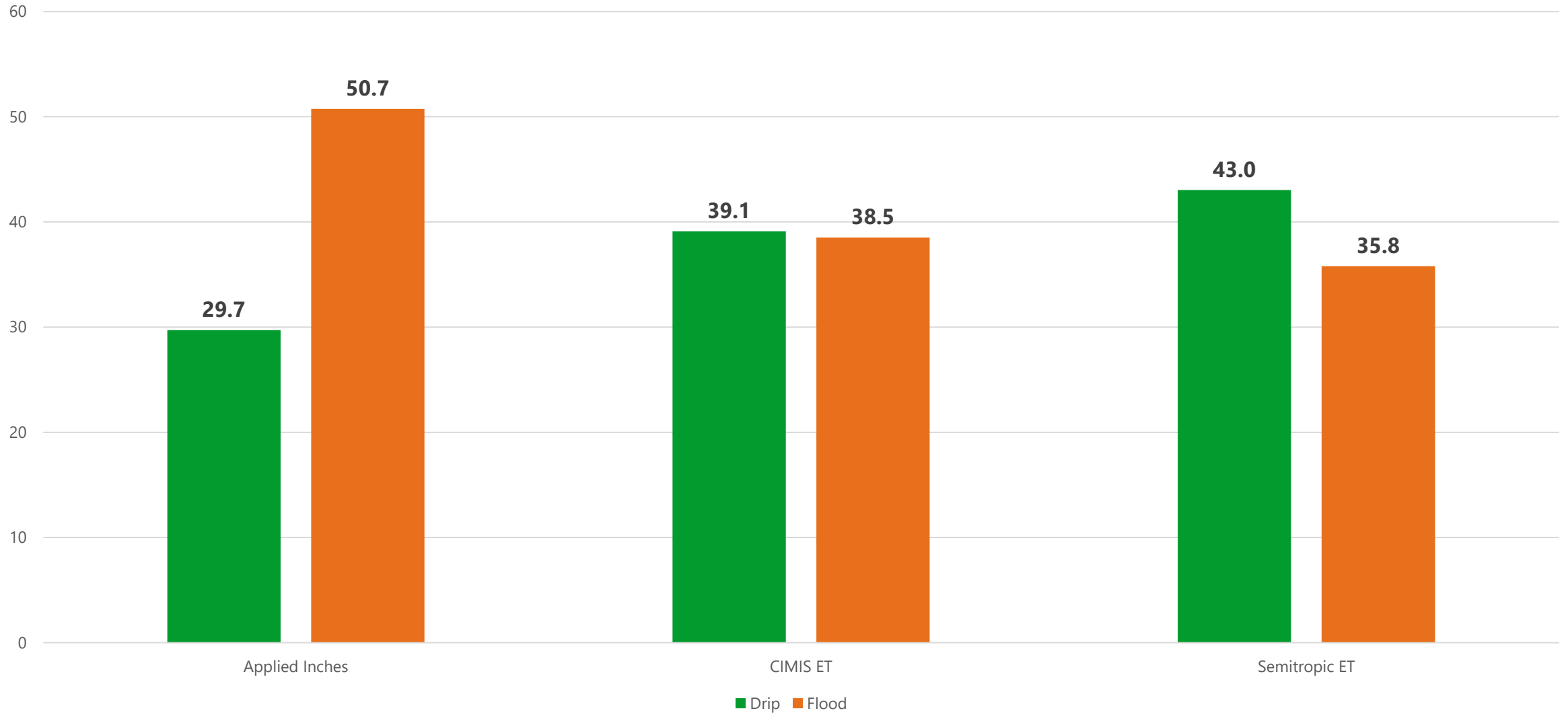
Cons

- » Higher initial cost.
- » Drip tape maintenance is required
- » Requires good rodent control program

Applied water inches



Applied water inches in 2019 compared to CIMIS ET and Semitropic ET



Thank You

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