PROFITABLE IRRIGATION: HOW MUCH MORE CANE WILL YOU PRODUCE?

Rising water and electricity prices are the key factors putting pressure on irrigation. To reduce the impact of increased costs, solutions available include improving irrigation timing to maximise productivity, and pumping efficiency to minimise costs. Read below to get a better understanding of how profitable irrigation can be for your farm.

Pumping Energy Costs

Before making any changes to your irrigation system, understand your current irrigation costs and profitability. CaneCalcs (www.canecalcs.com) is an online web tool that features a set of calculators for assessing irrigation systems in the Australian sugarcane industry. Following the steps shown on the opposite page you will be able to obtain your Pumping Energy Costs from the CaneCalcs calculator. **For this example we used the CaneCalcs tool and calculated a $79/ML expense for the pumping energy cost.**

Usage charges

Only add the usage charges when you're working out the profitability of irrigation on your farm – because allocation charges are fixed costs whether you use the water or not. You can get this cost from your most recent water bill. If you want to purchase additional water outside your current allocation, you then need to give consideration to how much that extra allocation charge is going to come into play. **For this example the usage cost is $20/ML.**

Labour: How much is your time worth?

If you have employees doing your irrigation this will be an easy number to use. If not, add what you would you earn in a job off-farm. We are assuming that it takes 1hr to setup and run the irrigator to apply 1ML of irrigation. **$40/hr is the number we will use for this example.**

Calculating income from crop response

How much additional cane will you produce from a megalitre of irrigation? The SRA Irrigation Manual has some average crop responses per megalitre of irrigation. A good average to use is an extra 8 tonnes of cane will be grown for each megalitre of irrigation. This crop response can be optimized using scheduling tools like soil moisture probes or software like Irrisat (free) or Irrigweb (subscription). For this example we've used a grower who has a mix of forward priced and harvest pool priced sugar, yielding a $700/t sugar price. With an average CCS of 13.5, this gives us $61/t of cane and we deduct a further $10/t for harvesting and levies, giving us $51/t of cane. **The crop response is 8t/ML of irrigation and the resulting income is $408/ML.**

Calculating your profitability from irrigation

Calculation	Value/ML ($/ML)
Income from crop response (after harvesting/levies are deducted)	+$408
Pumping energy cost	-$79
Water cost	-$20
Labour cost	-$40
PROFIT/LOSS (Income - Costs)	**$269 Profit**

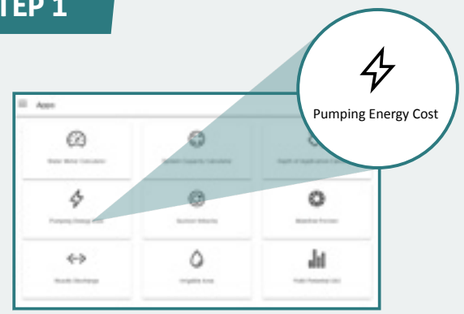


"For this example, this Mackay farmer can expect to see a $269 profit from every megalitre of irrigation that is applied this year."

A key focus of SRA's Central District Productivity Plan is to increase profitable irrigation for growers in response to years of steady decline in irrigation. Central district growers can contact SRA District Manager, Dylan Wedel (pictured) if they'd like some assistance with calculating their irrigation profitability.

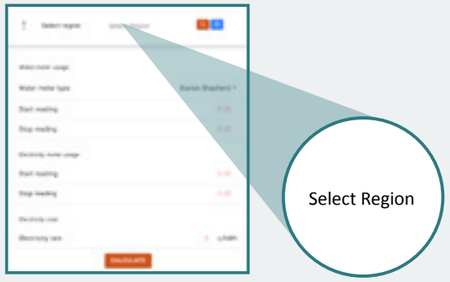
CANECALCS.COM IS THE BEST STARTING POINT FOR WORKING OUT YOUR IRRIGATION COSTS

STEP 1



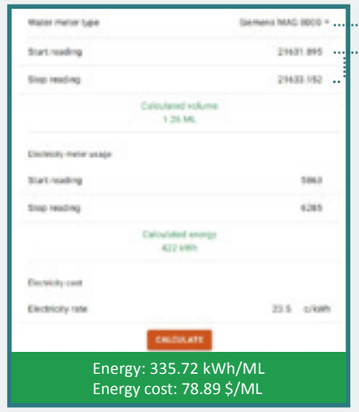
Go online to: www.canecalcs.com
Choose Pumping Energy Cost

STEP 2



Select your Region

STEP 3 - 7



STEP 3: Select Water Meter type

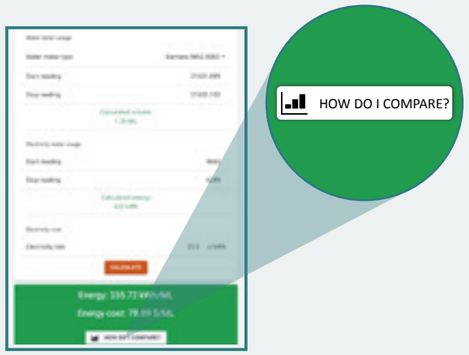
STEP 4: Add the readings for Start and Stop for irrigation run

STEP 5: Add the readings for Start and Stop for Electricty meter usage

STEP6: Add your Electricity rate in the Electricity Cost section

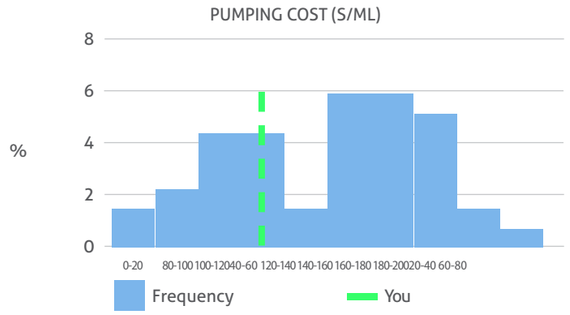
STEP 7: Click the 'Calculate' button and your cost per megalitre (ML) for pumping is displayed

OPTIONAL STEP



If you want to see how your costs compare to others in your region, you can click the 'How Do I Compare?' button.

HOW DO I COMPARE?



The data above from the 'How Do I Compare?' shows a range of pumping costs for the Mackay region. This is based on limited data. As more growers use CaneCalcs, this data will improve for each region. This graph currently includes flooding, low pressure and high pressure irrigation systems so even if you have a low cost per megalitre ($/ML), there is room for improvements. Tariffs are an easy way to reduce your pumping costs and there are a number of tools available to help compare them.