

FARM IRRIGATION SURVEY SUMMARY

GMID¹ 2019/20²

The GMID's land and water use profile continues to evolve, with irrigators adopting resilience strategies such as efficiency upgrades, changing land cover, land use transition, and participating in the water market.

BACKGROUND

Based on the 2019/20 irrigation season, irrigators were surveyed³ to understand property-level irrigator decision-making, build understanding of how the Goulburn Murray Irrigation District (GMID) is changing, and how water users are adapting to reduced water availability. The project obtained a representative sample of irrigators for each of the key land use activities (Dairy, Cropping, Horticulture and Grazing) against Water Use Licence. This fact sheet presents a summary of 2019/20 data⁴, and compares it to 2015/16 data.⁵

LAND COVER

Two-thirds of irrigators were growing annual pasture (61.5%), half growing winter grain/fodder, and one-third growing perennial pasture and lucerne. Only 7% were growing summer grain/fodder which requires access to irrigation water over summer.

FARMING EXPERIENCE

GMID irrigators have an average of 35 years farming experience and most own their properties. Seventy-five percent believe their property would be irrigated in five years' time. Fifty-four percent of irrigators had long-term plans to pass their properties to family, particularly those who have been farming for a long period of time, with a statistical association between succession planning and average farming years.

IRRIGATION SYSTEM

Irrigation systems remain predominantly gravity channel fed for Dairy, Cropping and Grazing (>90%), while horticulturalists are using micro drip and sub-surface irrigation. The use of pipe and riser, centre pivots and micro drip/sub-surface irrigation have doubled since irrigators were last surveyed in 2015/16.

MODERNISED

The majority of irrigators (93%) were connected to Goulburn Murray Water modernised supply points. Most irrigators (80%) had upgraded their on-farm irrigation infrastructure to increase productivity and water use efficiency. This is 30% more than reported in 2015/16.

ON-FARM IRRIGATION SYSTEM UPGRADES AND BARRIERS

Less than half (41%) of irrigators had undertaken infrastructure upgrades with government funding. More than two-thirds of irrigators (mostly dairy and cropping) had developed and were implementing a professionally prepared Whole Farm Plan, which also shows willingness to improve their water use efficiency and upgrade irrigation systems.

In 2019/20, 93% of irrigators had modernised irrigation supply points, compared to 68% in 2015/16. Dairy and Cropping (both 96%) had the highest percentage of irrigators with modernised supply points, compared to Horticulture (91%) and Grazing (86%).

Significant barriers remain for irrigators to upgrade their irrigation infrastructure including uncertainty of water allocation, lack of financial resources and inadequate water availability. These were also the main barriers reported in 2015/16 and 2004/05 (during the drought).

1. The project area is referred to collectively as the Goulburn Murray Irrigation District (GMID), which includes the GMID (including Woorinen), Tresco and Nyah Irrigation Districts.

2. 2019/20 data is reflective of activity at the point of survey and based on the 2019/20 irrigation season (August 2019 to May 2020).

3. Full technical reports (which outline the survey methodology) are available at www.gbmca.vic.gov.au

4. Sample size is an important marker of the quality of survey research which can influence the validity and generalisability of study results. In this study, care must be exercised in drawing conclusions about subgroups of population when the number of units captured by the sample in the subgroup is very small.

5. GB CMA (2017). Regional Irrigated Land and Water Use Mapping in the Goulburn Murray Irrigation District (Technical Report), 2015/16. Goulburn Broken Catchment Management Authority, Shepparton.

FARM IRRIGATION SURVEY SUMMARY

GMID 2019/20

WATER ALLOCATION

In 2019/20, half the irrigators owned more than 200ML of High Reliability Water Share (HRWS). Less than half (42%) said they have the amount of HRWS required to irrigate their properties, therefore placing demand on allocation trade, with 57% using trade as part of their long-term business plan. In the past decade, more than a third (35%) of irrigators had decreased their water share, while 44% held their water share, and 20% had increased their water share. There was a statistical association between those who had upgraded irrigation infrastructure and those who had sold their water, to fund new systems.

SELLING AND BUYING ALLOCATION

In 2019/20, nearly two-thirds (59%) of irrigators, mainly Dairy and Horticulture (95%) were purchasing allocation, compared to 43% (mainly cropping and grazing) who sold water. These results indicate that Dairy and Horticulture are significantly more likely to trade in water, and Grazing and Cropping significantly more likely to trade out.

ALLOCATION PRICES

Over half (57%) of irrigators indicated they rely on the allocation market to meet their production needs. Irrigators were highly sensitive to allocation prices with 77% indicating that a price greater than \$250/ML was not viable for their business.

There were more irrigators in 2019/20 than in 2015/16, willing to pay more than \$250/ML, suggesting irrigators are adapting their business plans in response to water market variability.

The mean price above which water becomes unviable for Horticulture was \$500/ML in 2019/20, compared with \$219/ML for Dairy, \$211/ML for Grazing and \$184/ML for Cropping.

CARRYOVER

More than two-thirds (71%) of irrigators reported using carryover to manage their irrigation water, for reasons such as security for the next season, unused allocation, early irrigation needs (e.g. Spring) and cost of temporary water. The average percentage of water share irrigators look to carry over annually is 34.5% and was similar amongst all land uses (30-39% range).

LAND TRANSITION

Nearly a quarter (23%) of irrigators were involved in land use transition such as dairy to grazing/cropping, permanent pasture to annuals, and pasture to barns. Reasons included water availability and price, and age/health factors.

Accompanying fact sheets and full technical report are available at www.gbcma.vic.gov.au

This project is delivered and funded by partnerships between Department of Environment, Land, Water and Planning, Agriculture Victoria, Goulburn Broken and North Central Catchment Management Authorities, Goulburn Murray Water, Murray Dairy and HMC Property Group. These organisations do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purpose and therefore disclaim all liability for error, loss or other consequence which may arise from relying on this publication's information.