

FARM IRRIGATION SURVEY

CARRYOVER

GMID¹ 2019/20²

Carryover is becoming an important water market tool for irrigators. It provides irrigators with the ability to hold their water until demand increases in the following season, or until they can make the best use of the water on farm.

BACKGROUND

Based on the 2019/20 irrigation season, irrigators were surveyed³ to understand property-level irrigator decision-making, and 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 2019/20 carryover data⁴ for the first time for this project and therefore no comparative data is available.⁵

WHAT IS CARRYOVER?

In 2007, the Victorian Government worked with northern Victorian water entitlement holders to ensure they could make the most of their water and have more control over how they could hold and use water between seasons. Carryover allows water entitlement holders to take their unused water allocations from one irrigation season, into the next season. Carryover is possible in the regulated water systems of northern Victoria, except for systems where storages are too small to support carryover (e.g. Ovens).⁶

PLANS TO CARRY OVER WATER

71% of irrigators said it was part of their business plan to carry over water in 2019/20 (Figure 1). Dairy were most likely to be planning to use carryover (79%), followed by Cropping (74%) and Horticulture (orchard) (54.5%).

Figure 1: Plan to carry over water in 2019/20

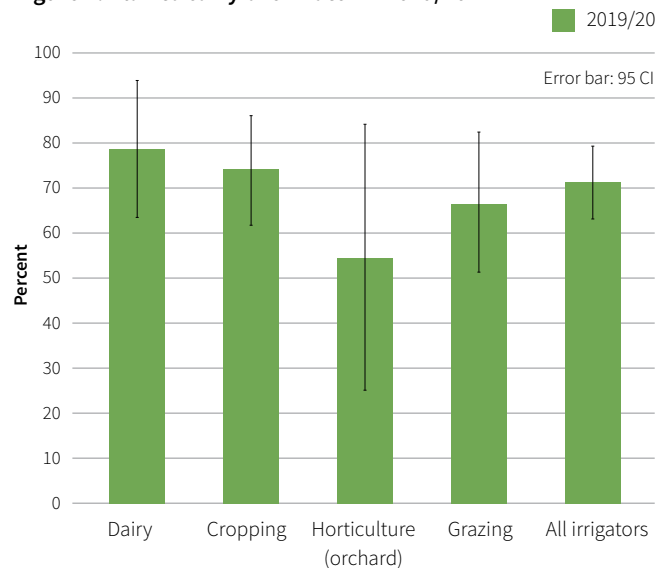


Table 1: Percentage of total High Reliability Water Share (HRWS) allocation irrigators plan to carry over annually

Industry	Mean (%)	Minimum (%)	Maximum (%)
Dairy (n=19)	31.2	5	100
Cropping (n=34)	38.8	5	100
Horticulture (orchard) (n=6)	30.0	10	100
Grazing (n=22)	32.1	10	100
All irrigators 2019/20 (n=81)	34.5	5	100

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.

6. Victorian Water Register (2021) <https://waterregister.vic.gov.au/water-entitlements/carryover>

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HOW MUCH WATER ARE IRRIGATORS PLANNING TO CARRY OVER ANNUALLY?

Water entitlement holders can carry over up to 100% of their full water share volume. Carryover has become an important water market tool for GMID irrigators . Irrigators on average plan to carry over 34.5% of their total High Reliability Water Share (HRWS) allocation, as part of their business strategy. There was little variation in carry over behaviour between land use (Table 1), with minimum and maximum responses between 5-100%.

WHY ARE IRRIGATORS USING CARRYOVER?

- Security for the next season.
- Unused allocation.
- Early irrigation needs (e.g. Winter/Spring) / to have enough water at the start of the irrigation season.
- Cost of temporary water.
- Total allocation comes out too late.
- Dry seasonal conditions.
- To fill dams and supply the house.
- To maximise farm business income.
- So that there is no need to purchase later (potentially at higher price).

SEASONAL CONDITIONS AND CARRYOVER IN 2019/20

Data from the Victorian Water Register shows that active irrigators in the GMID carried over approximately 35% of their use in 2019/20, which supports the findings of this survey.

Seasonal conditions and the water market influence how irrigators manage their business.

Following very dry conditions throughout the season, rainfall in February 2020 rainfall was 70% above average for Victoria , the wettest February since 2012. The April rainfall total for Victoria was more than double the long-term average, the third wettest April on record since 1974.⁷

The price of water in the southern connected basin (Northern Region) dropped from a high of \$938/ML in November 2019, to \$625/ML in February 2020. Prices continued to fall, reaching \$200/ML by June 2020. This meant that irrigators that sold allocations early in the season could benefit from the higher prices, while irrigators that held onto their allocations saw water prices drop.⁸

Carryover gives irrigators the ability to hold their water until demand increases in the following season, or until they can make the best use of the water to grow feed/crops.

7. Bureau of Meteorology (2021) <http://www.bom.gov.au/climate/current/annual/vic/summary.shtml#4>

8. Victorian Water Register (2021) <https://waterregister.vic.gov.au/water-entitlements/carryover>

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

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