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Western Australia's bulk and containerised grain exports in a national context

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Western Australia's bulk and containerised grain exports in a national context

(supplementary report)



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Department of
Primary Industries and
Regional Development

AEGIC is an initiative of the Western Australian State Government
and Grains Research & Development Corporation



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Executive summary

Western Australia (WA) dominates the export of bulk grain from Australia, regularly exporting between 12 to 16mmt of bulk grain each year whereas most other states usually only export up to 5mmt of bulk grain annually. Nonetheless, bulk export of grain by other states is by far their main source of grain exports, rather than containerisation.

Since 2011, Australia annually has produced on average about 41.5mmt of winter crops and 3.7mmt of summer crops. The grain from these crops flows to either domestic or export markets and most grain exported from Australia is in bulk, rather than containers.

Nonetheless, around 30 per cent of all grain exported from Australia's eastern states, Victoria (VIC), New South Wales (NSW) and Queensland (QLD), is exported in containers.

In contrast to containerisation, the bulk export of grains typically involves far fewer grain types and is dominated by wheat, barley and canola. WA is nationally unique in being almost entirely devoted to the bulk export of grain. WA regularly exports between 0.5mmt to 0.8mmt of containerised grain that comprises under 5 per cent of that state's annual grain exports, whereas containerised grain exports from VIC are regularly 1.2mmt to 1.8mmt and for NSW, 0.8mmt to 1.4mmt. Containerised grain exports from these two states often comprise around 30 per cent of their grain exports.

The mix of crops exported via containerisation differs between Australian states. WA exports a diverse range of grains, but mostly wheat, malt and processed oats. Wheat, lentils and faba beans dominate containerised grain exports from VIC, whereas wheat and chickpeas dominate exports from NSW and QLD. South Australia (SA) displays the most even mix of containerised grain exports, featuring lentils, faba beans, wheat, field peas and malt.

Apart from wheat, each grain type tends to be sent to a narrow range of destination countries. Pulses predominately are sent to South Asian and Middle East countries. Malt is exported to only a handful of countries. Sorghum is mostly sent to Japan and China. Barley once flowed mainly to China but now goes to Middle East and South East Asian countries. Wheat is principally sent to a range of North Asian and South East Asian countries.

Introduction

Grain is exported from Australia either in bulk or via containers. Grain containerisation is much more prevalent in Australia's eastern states of QLD, NSW and VIC; often forming around 30 per cent of all grain exports from these states. By contrast, the main state that dominates the export of bulk grain from Australia is WA. WA regularly exports in bulk between 12 to 16mmt of grain each year whereas most other states usually only export up to 5mmt of bulk grain annually.

The main grains exported and their destinations for each state's exports of containerised and bulk grain are shown in Table 1. There is often a marked difference in the types of grains exported in containers versus bulk. Many pulses, processed oats, malt and wheat are exported in containers. By contrast wheat, barley, canola and sorghum are the principal grains exported in bulk.

The destinations for most pulses exported in containers are countries such as India, Bangladesh, Egypt and Pakistan. Malt and processed oats go to a range of countries including China, Vietnam, South Korea and Malaysia.

The principal destinations for wheat exported in bulk are countries such as Indonesia, Vietnam, China and the Philippines. Barley, historically, has often been exported to China; but after China's imposition of prohibitive tariffs most barley now is exported to Saudi Arabia, Japan and some South East Asian countries. Canola mostly is exported to countries in the European Union. Containerised sorghum has been sent to Japan, whereas bulk sorghum mostly is exported to China.

The next section shows in greater detail via a series of charts the export history of containerised grain exports from each state since 2011.

Table 1: Main grains exported and main destinations for each state's exports of containerised and bulk grain

| State | Containerised exports | | Bulk exports | |
|-------|--|-------------------------------------|--------------------------------------|------------------------|
| | Top 3 or 4 destinations | Main grains exported | Top 3 or 4 destinations | Main grains exported |
| WA | Vietnam, Philippines, South Korea, China | malt, processed oats, wheat | China, Japan, Indonesia, South Korea | wheat, barley, canola |
| NSW | Vietnam, Taiwan, China, India | wheat, chick peas, malt, faba beans | China, Indonesia, Vietnam | wheat, canola, sorghum |
| VIC | Vietnam, Malaysia, Taiwan, China | wheat, lentils, faba beans, malt | China, Indonesia, Japan, Vietnam | wheat, canola, barley |
| SA | Egypt, Bangladesh, India, Vietnam | lentils, faba beans, malt, wheat | Indonesia, China, Vietnam | wheat, barley, canola |
| QLD | India, Bangladesh, Japan, Pakistan | chick peas, wheat, sorghum | China, Vietnam, Indonesia, Japan | sorghum, wheat |

Containerised grain exports

Western Australia

WA maintains a diverse set of containerised grain exports, including malt, processed oats, and wheat. However, compared to the eastern states, WA exports much smaller volumes of containerised grain; around 0.6mmt each year.

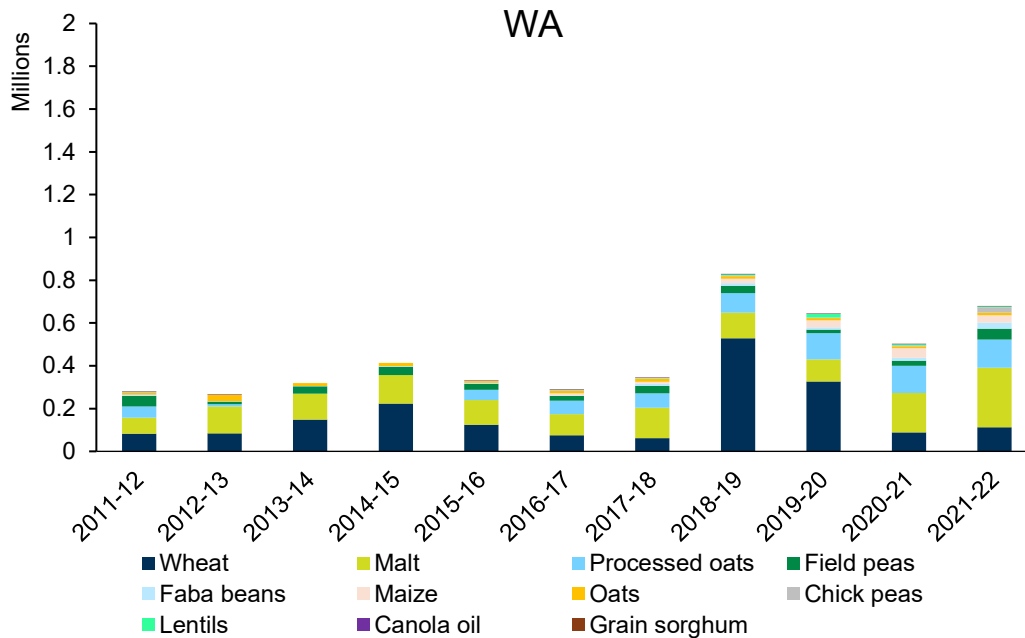


Figure 1. Containerised grain exports from Western Australia in each financial year from 2011/12 to 2021/22 (mmt)

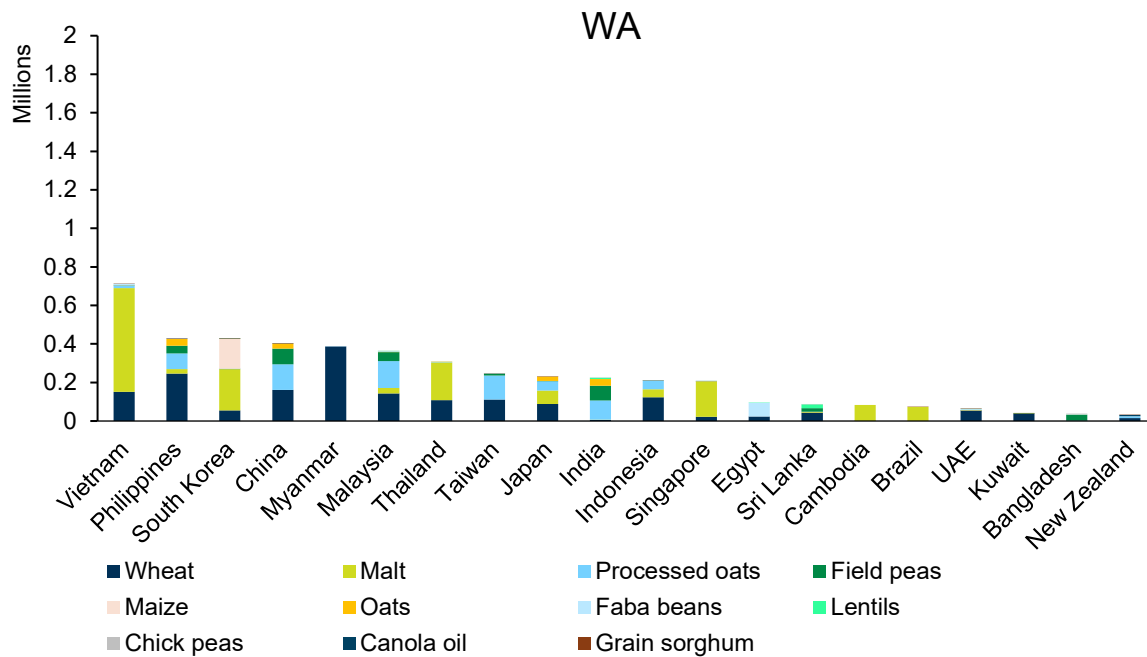


Figure 2. Top 20 markets for containerised grain exported from Western Australia; total tonnage exported from 2011/12 to 2021/22 (mmt)

Victoria

VIC is Australia's main and most consistent source of containerised grain exports, regularly exporting over 1.2mmt of a variety of grains; principally wheat and lentils, but complemented by a range of other commodities; canola oil, malt and other pulses. The main destinations for these exports are a range of South East Asian countries; but some grains, like lentils and faba beans, flow to specific markets such as Egypt and sub-continent countries.

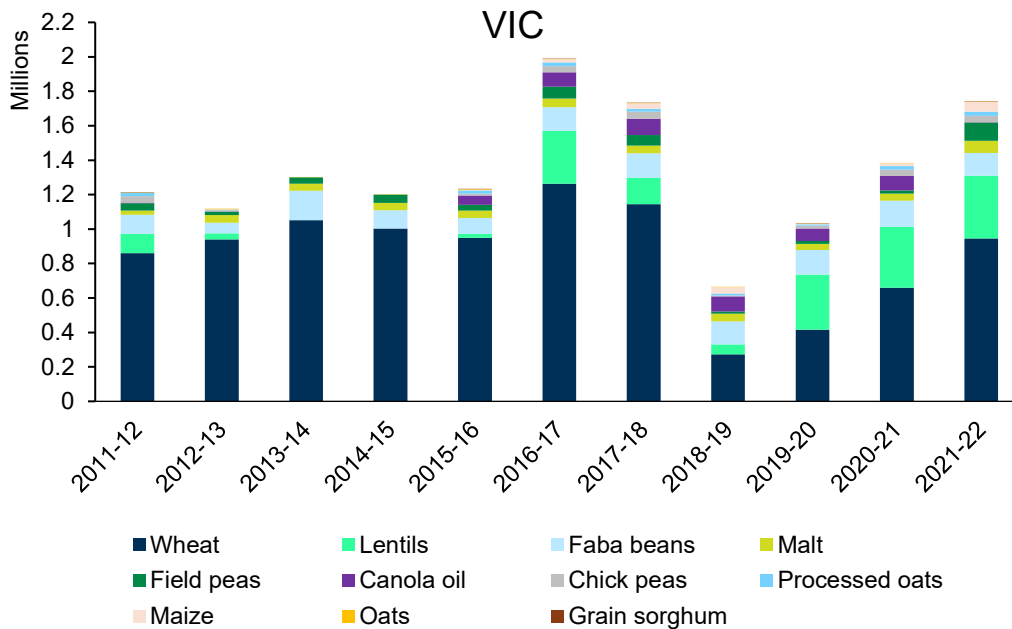


Figure 3. Containerised grain exports from Victoria in each financial year from 2011/12 to 2021/22 (mmt)

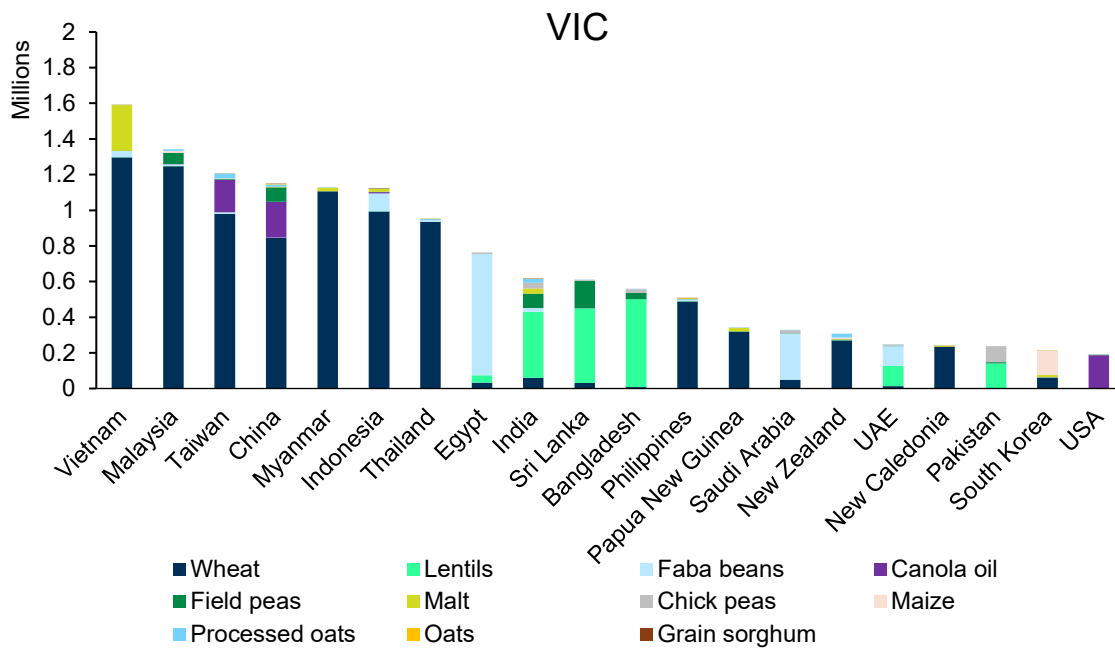


Figure 4. Top 20 markets for containerised grain exported from Victoria; total tonnage exported from 2011/12 to 2021/22 (mmt)

New South Wales

After VIC, NSW is the nation's next most important source of containerised grain exports. Wheat is the principal containerised grain exported from NSW. Of next importance are chick peas, malt and faba bean exports. The export of containerised grain is volatile due to seasonal impacts, especially periods of drought that curtail available supplies and drive up local prices of grains that ordinarily would be exported. Wheat in containers is principally exported to several South East Asian countries.

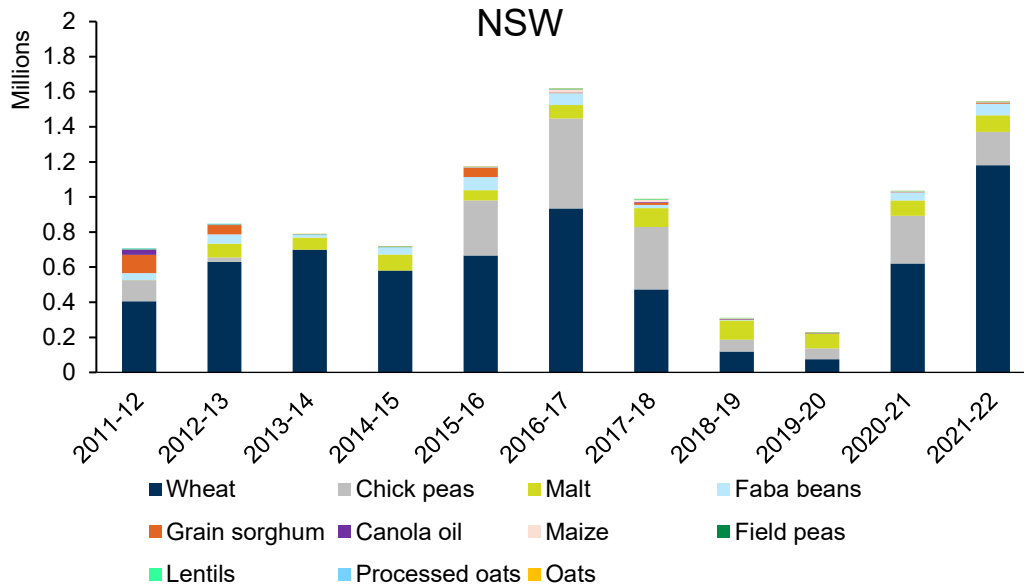


Figure 5. Containerised grain exports from New South Wales in each financial year from 2011/12 to 2021/22 (mmt)

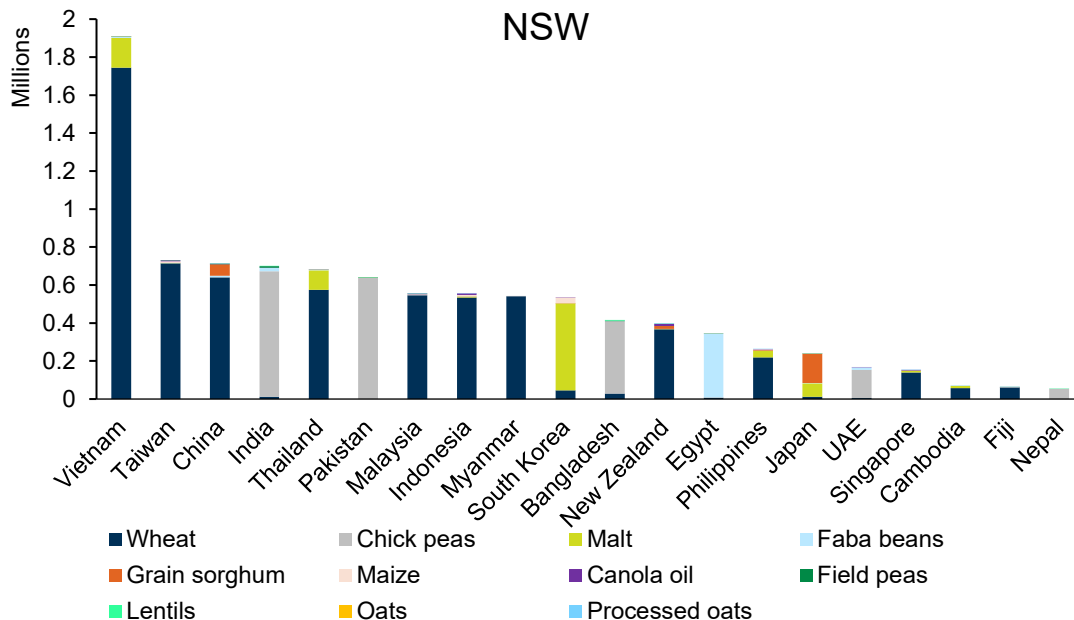


Figure 6. Top 20 markets for containerised grain exported from New South Wales; total tonnage exported from 2011/12 to 2021/22 (mmt)

Queensland

QLD's containerised grain exports are highly variable and show no consistent pattern of growth. Chick peas, wheat, faba beans and sorghum are the dominant grains exported in containers. In favourable production years greater volumes of these grains are exported, but in years of low production, exports are minimal. Chick peas exported to the sub-continent are especially important. A smaller more consistent volume of faba beans is also exported to a handful of countries like Egypt, China and Vietnam. Grain sorghum continues to be mainly sent to Japan, but in lesser volumes.

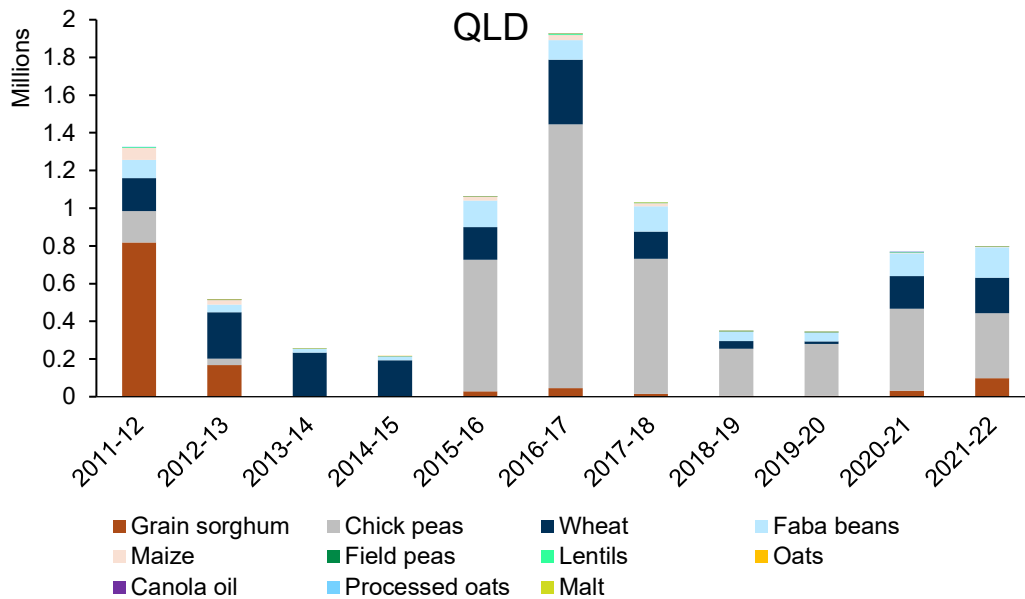


Figure 7. Containerised grain exports from Queensland in each financial year from 2011/12 to 2021/22 (mmt)

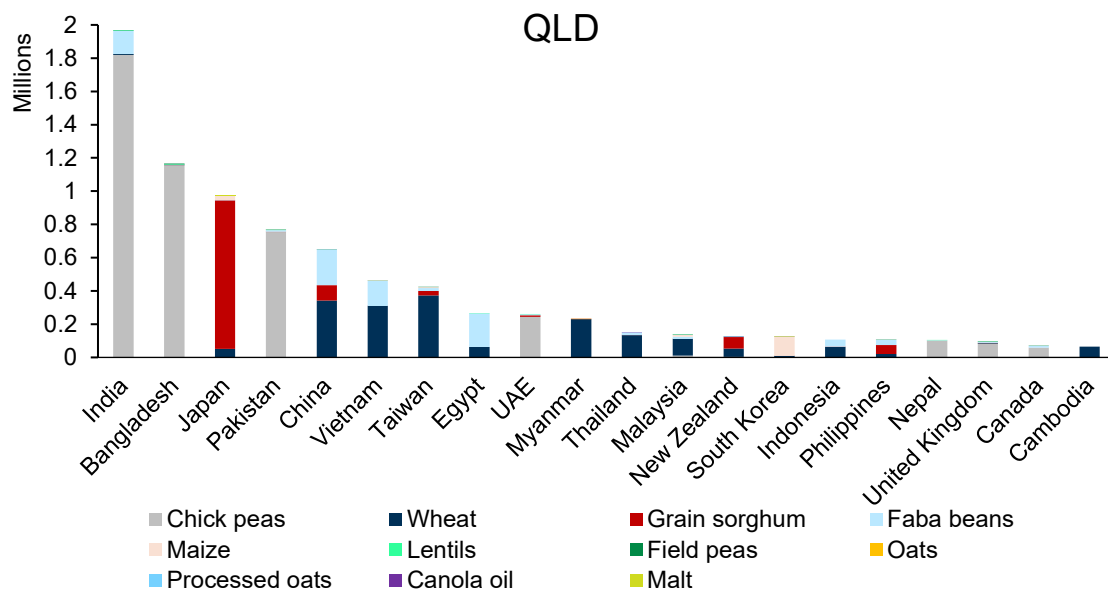


Figure 8. Top 20 markets for containerised grain exported from Queensland; total tonnage exported from 2011/12 to 2021/22 (mmt)

South Australia

SA is a stable exporter of a diverse suite of grains. Lentils, faba beans, malt and wheat form a balanced portfolio of grains exported in containers. The challenge for SA exporters of these grains is that the main destinations for these grains are in South Asia and Egypt. Disruption to container shipping resulting from the COVID pandemic greatly affected the cost and availability of container shipping routes to these countries and thereby affected the ease and profitability of the containerised exports of these grains from SA. Nonetheless since 2018/19 SA has increased its exports of containerised grain.

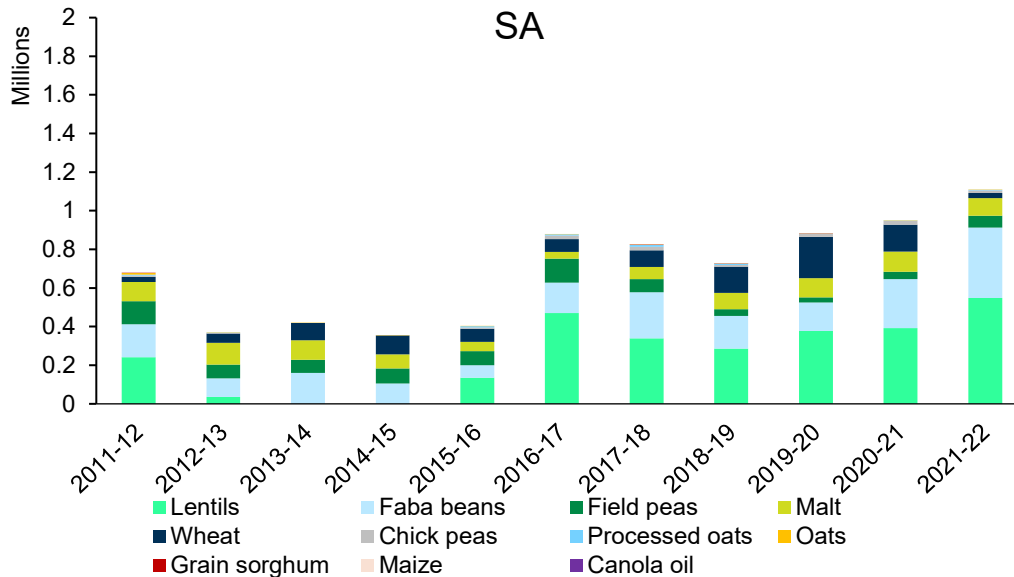


Figure 9. Containerised grain exports from South Australia in each financial year from 2011/12 to 2021/22 (mmt)

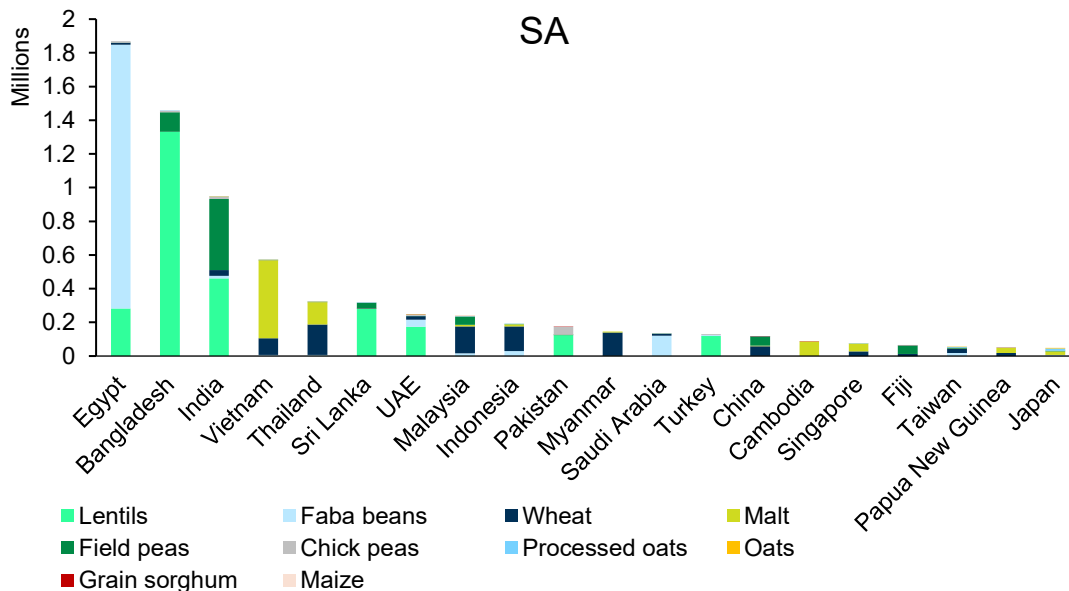


Figure 10. Top 20 markets for containerised grain exported from South Australia; total tonnage exported from 2011/12 to 2021/22 (mmt)

Bulk Grain Exports

Western Australia

By far, Australia’s main source of exports of bulk grain is WA. The state regularly exports between 13 to 16mmt of grain; mostly wheat, barley and canola.

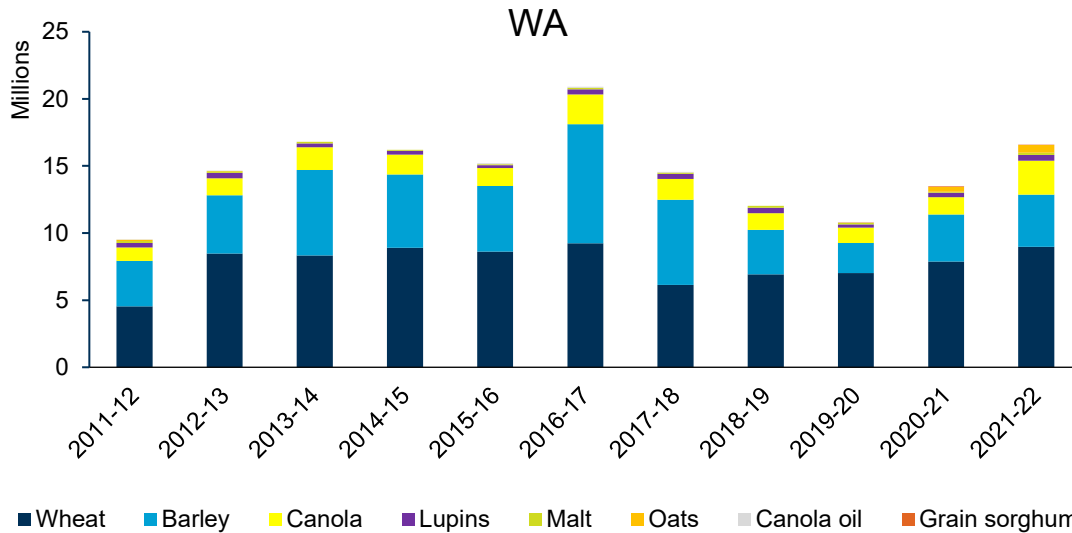


Figure 11. Bulk grain exports from Western Australia in each financial year from 2011/12 to 2021/22 (mmt)

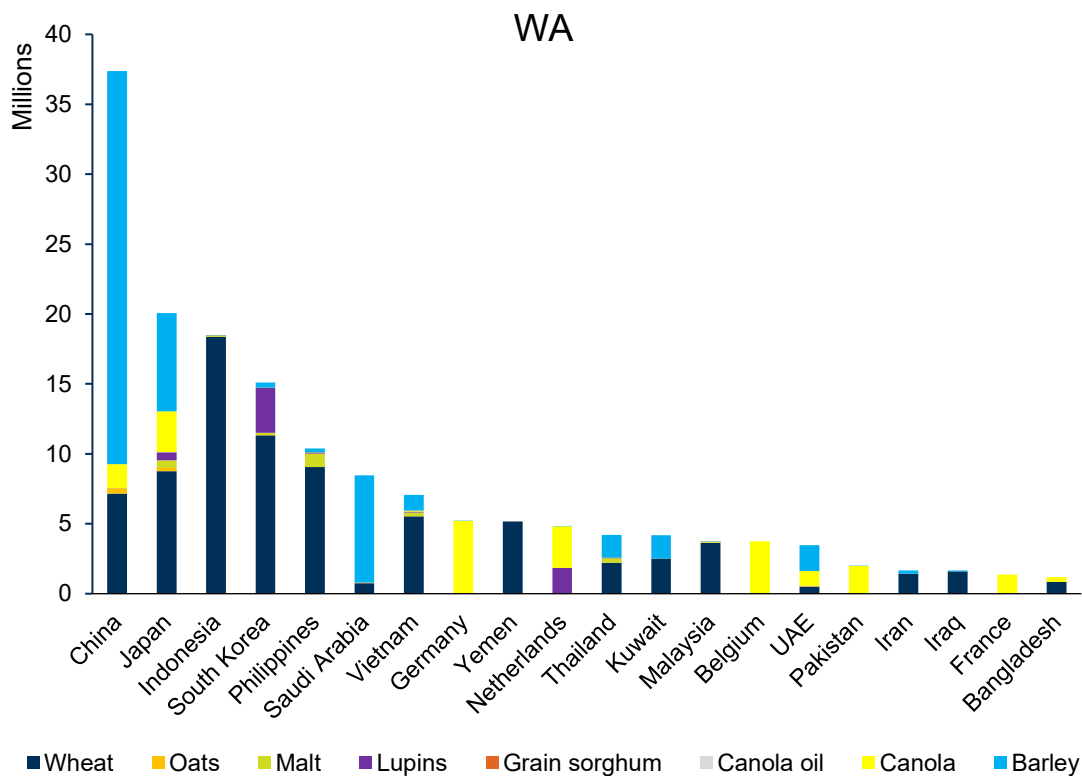


Figure 12. Top 20 markets for bulk grain exports from Western Australia; total tonnage exported from 2011/12 to 2021/22 (mmt)

New South Wales

Bulk exports of grain from NSW are subject to marked volatility. In periods of severe drought, as occurred in 2018-19 and 2019-20, bulk exports almost cease. By contrast, bumper years as occurred in 2020-21 and 2021-22 unleash annual bulk wheat exports of over 4mmt. The other bulk export crops of far lesser importance are canola and sorghum.

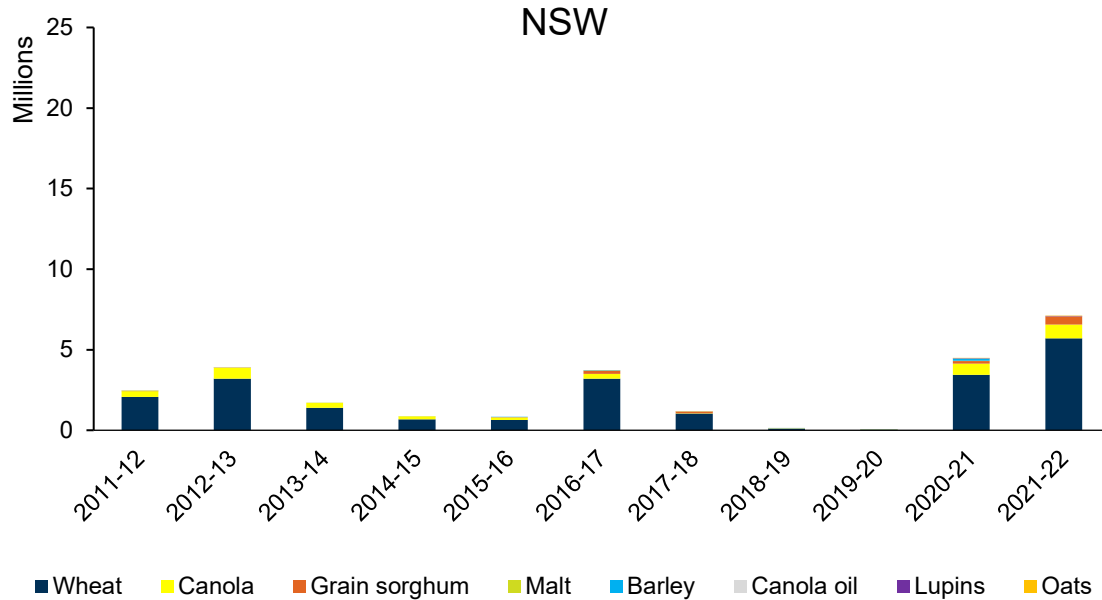


Figure 13. Bulk grain exports from New South Wales in each financial year from 2011/12 to 2021/22 (mmt)

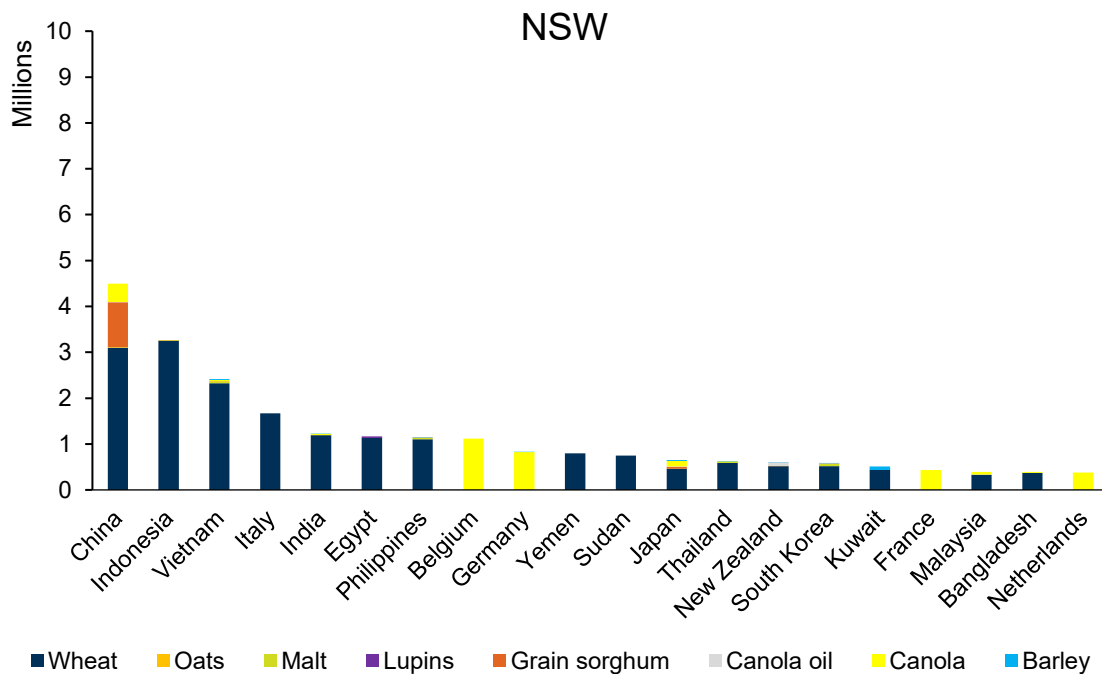


Figure 14. Top 20 markets for bulk grain exports from New South Wales; total tonnage exported from 2011/12 to 2021/22 (mmt)

South Australia

SA is often a reliable exporter of bulk grains; mostly wheat, barley and canola. The state regularly annually exports over 4mmt.

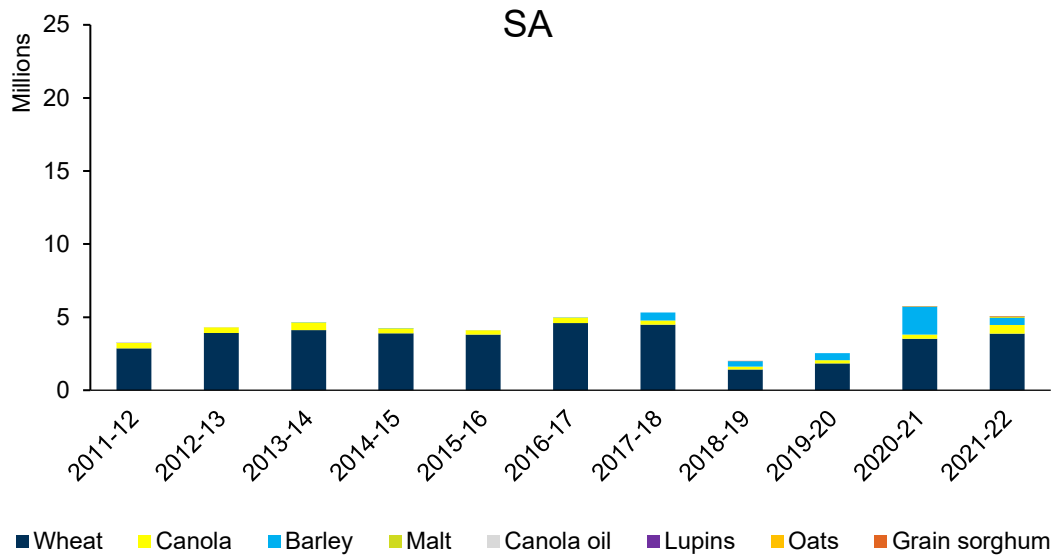


Figure 15. Bulk grain exports from South Australia in each financial year from 2011/12 to 2021/22 (mmt)

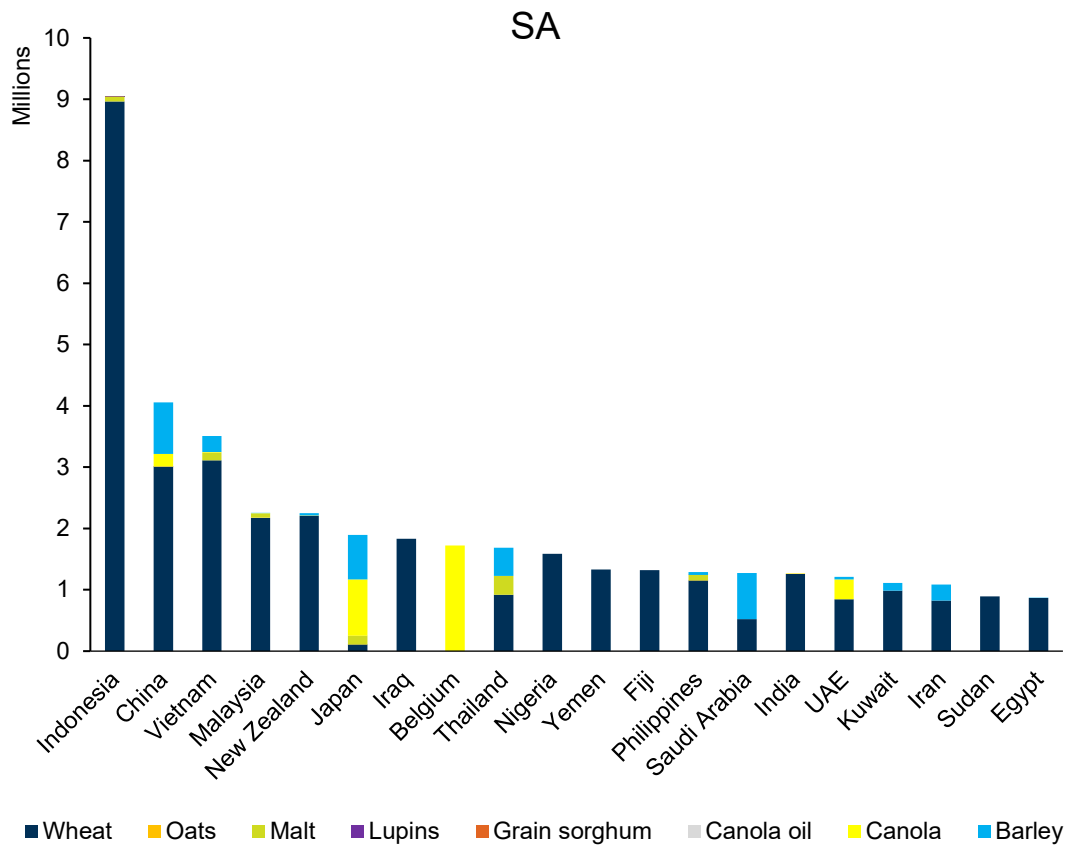


Figure 16. Top 20 markets for bulk grain exports from South Australia; total tonnage exported from 2011/12 to 2021/22 (mmt)

Victoria

Bulk exports of grain from VIC, like the volumes from QLD and NSW, are subject to marked volatility. In periods of severe drought, as occurred in 2018-19 and 2019-20, bulk exports greatly reduce. The portfolio of bulk grains exported from VIC is much more diverse and balanced in comparison to the portfolio of bulk export crops that emanate from NSW or QLD. Barley and canola enjoy larger shares in the export crop mix in VIC, compared to the other states where wheat is by far the principal export grain.

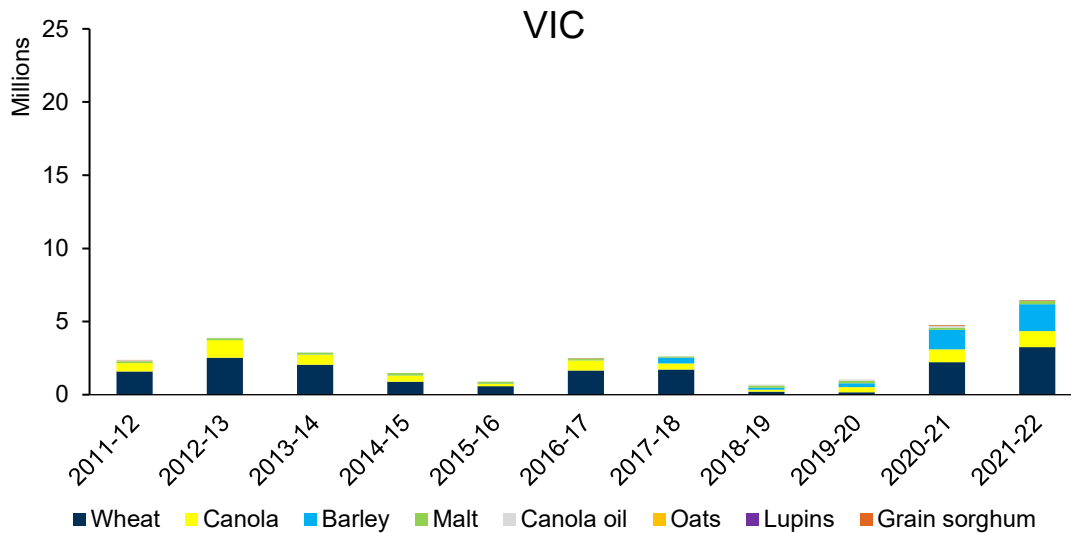


Figure 17. Bulk grain exports from Victoria in each financial year from 2011/12 to 2021/22 (mmt)

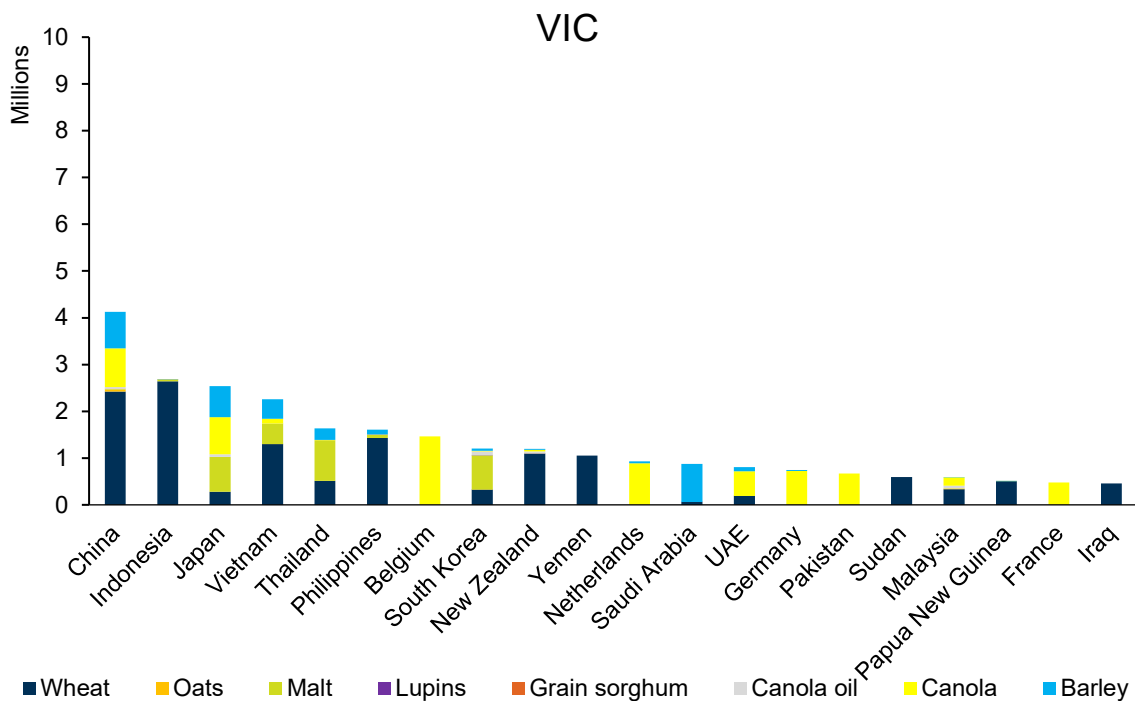


Figure 18. Top 20 markets for bulk grain exports from Victoria; total tonnage exported from 2011/12 to 2021/22 (mmt)

Queensland

The mix of bulk grains exported over the two decades from QLD has changed with wheat and sorghum emerging to be, by far, the key bulk grains exported. However, compared to other states, only small volumes of bulk grains emanate from QLD and are subject to marked variation.

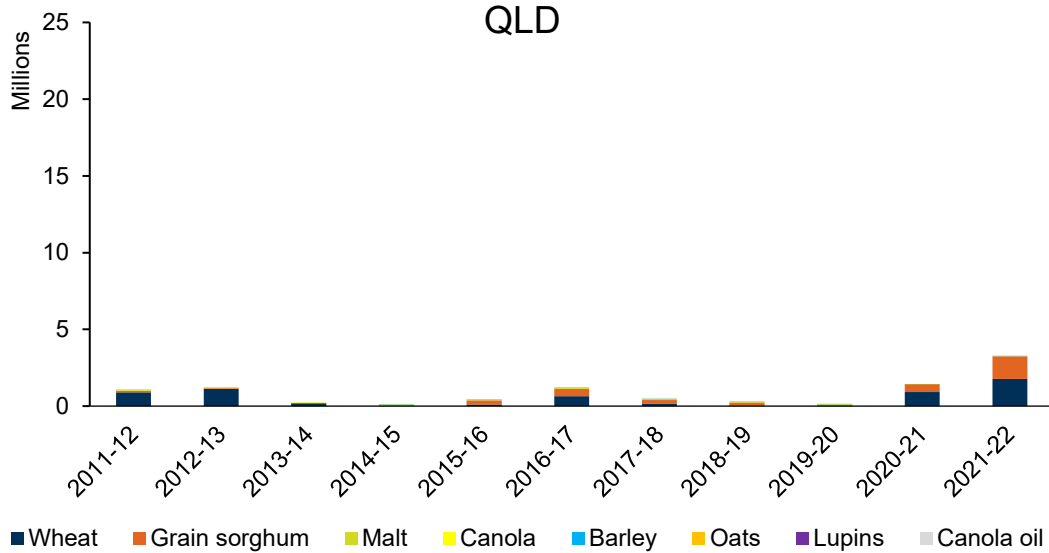


Figure 19. Bulk grain exports from Queensland in each financial year from 2011/12 to 2021/22 (mmt)

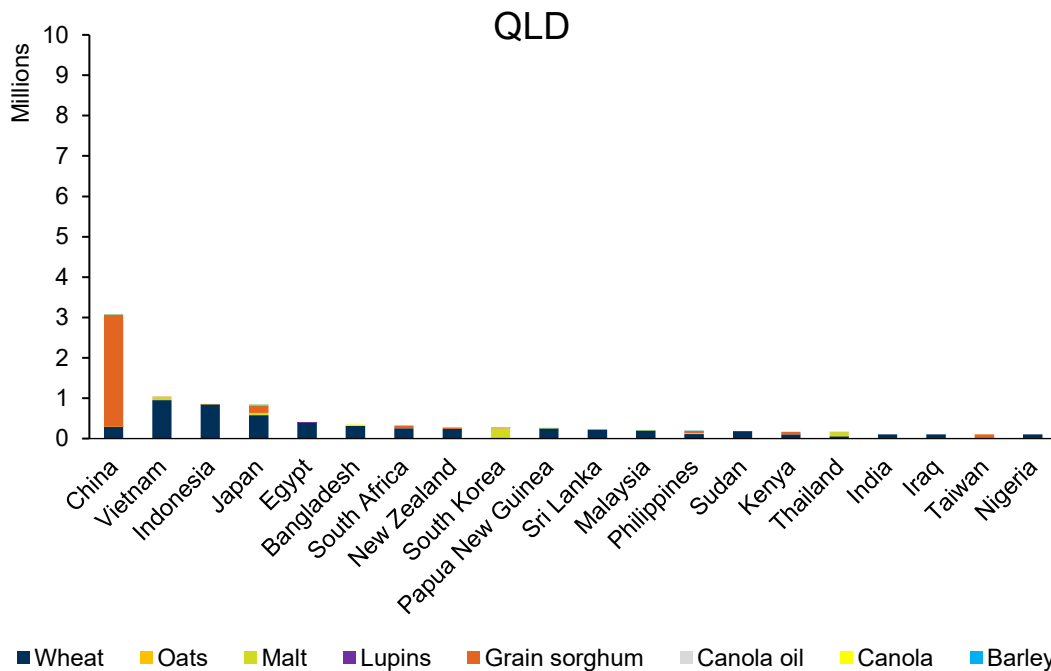


Figure 20. Top 20 markets for bulk grain exports from Queensland; total tonnage exported from 2011/12 to 2021/22 (mmt)

Acknowledgements

Luke Monahan assembled the ABS datasets of containerised and bulk grain exports from Australian states. Dipesh Maharjan created the report's charts.