



Australian Government
Department of Industry,
Science and Resources

Anti-Dumping
Commission

Australian industry verification report

Verification and case details

Initiation date	13/04/2022	ADN	2022/034
Case number	604		
The goods under consideration	2,4-Dichlorophenoxyacetic acid (2,4-D)		
Case type	Continuation Inquiry		
Australian industry	Nufarm Limited		
Verification from	26/07/2022	to	
Inquiry period	1/04/2021	to	31/03/2022

THIS REPORT AND THE VIEWS OR RECOMMENDATIONS CONTAINED THEREIN
WILL BE REVIEWED BY THE CASE MANAGEMENT TEAM AND MAY NOT REFLECT
THE FINAL POSITION OF THE ANTI-DUMPING COMMISSION

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Preface

The Anti-Dumping Commission has undertaken verification of data provided by Nufarm Limited for Continuation Inquiry 604. This report details the evidence gathered and the key findings from the verification of the data.

This report has been prepared for publication on the electronic public record for Continuation Inquiry 604.

This report provides interested parties with information regarding all material aspects of the verification, including explanations of any material issues identified during the verification. It outlines the nature, extent and consequences of any changes made to the data submitted, including data corrections made by the company or by the verification team.

Verification teams are authorised to conduct verifications under section 269SMG and 269SMR of the *Customs Act 1901* (Cth) (the Act).¹

¹ References to any section in this report relate to provisions of the Act, unless specifically stated otherwise.

1 Company background

1.1 Corporate structure and ownership

Nufarm Limited is a global crop protection and seed technology company that has been in existence for over 100 years. It has 11 manufacturing sites across the world and listed on the Australian Stock Exchange (ASX).

Nufarm Australia Limited (Nufarm) is a wholly owned subsidiary of Nufarm Limited for operations in Australia. Nufarm's head office and main manufacturing site for its global operations is in Laverton North, Victoria.

1.2 Related parties

The verification team examined the relationships between related parties involved in the manufacture and sale of the goods.

It was found that there were no significant transactions with related parties in regards to the manufacture and sales of 2,4-Dichlorophenoxyacetic acid (2,4-D) in Australia.

2 Like goods manufactured in Australia

2.1 Manufacturing in Australia

Nufarm is an integrated manufacturer of 2,4-D in Australia and makes up a major proportion of the total Australian market for 2,4-D.

2,4-D acid is the active herbicidal ingredient in the like goods and is synthesised in Australia by Nufarm at 103-105 Pipe Road, Laverton North VIC. 2,4-D Acid is also used to synthesise 2,4-D ethyl ester (at Laverton North) and 2,4-D ethyl hexyl ester (at Laverton North and Masons Road, Kwinana WA).

2.1.1 Production process

Nufarm purchases imported phenol from a third-party local storage facility which is then reacted with chlorine (which is produced on site through an electrolysis process requiring energy that passes through a brine solution prepared with locally mined sodium chloride) to form 2,4-dichlorophenol.

A by-product of this chlorine production is sodium hydroxide which is reacted with 2,4-dichlorophenol and imported mono-chloroacetic acid to form a 2,4-D sodium salt which is then converted to 2,4-D acid via acidification with hydrochloric acid (which is also a by-product of the electrolysis process).

2.2 Model control codes

Table 1 below provides detail on the model control code (MCC) sub-categories were determined and verified to source documents.

Category	Determination of the sub-category [note evidence]
Form	Either 'technical' or 'formulation'. Nufarm provided a detailed structure of the product coding system for both technical and formulation. The MCC's product code starts with the letter "T" or "F" this defines whether the form is 'technical' or 'formulation.'
Product Type	Product codes indicated in commercial invoices, purchase orders and packing lists
Strength	Based on the percentage strength of 2,4-D (% w/v).

Table 1: MCC sub-category determination

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Table 2 below outlines the commission’s MCC structure applied to Nufarm’s 2,4-D goods.

Category	Sub-Category		Sales Data	Cost Data
Form ²	T	Technical	Mandatory	Mandatory
	F	Formulation		
Product Type	A	Acid	Mandatory	Mandatory
	E	Esters		
	S	Amines/Salts		
	M	Mixtures ³		
Strength	### ⁴	% (w/v) 2,4-D Acid	Mandatory	Mandatory

Table 2: MCC structure

2.3 Like goods

Like goods are defined under section 269T(1) of the Act as:

goods that are identical in all respects to the goods under consideration or that, although not alike in all respects to the goods under consideration, have characteristics closely resembling those of the goods under consideration.

The continuation inquiry initiation notice Anti-Dumping Notice (ADN) No. 2022/034 outlined the goods under consideration:

The 2,4-D covered by the anti-dumping measures includes:

- Sodium salt
- 2,4-D acid
- 2,4-D intermediate products (salts and esters), including
 - iso butyl ester technical
 - ethyl ester technical
 - 2 ethyl hexyl ester technical
 - dimethylamine (DMA) and
 - iso-propylamine (IPA)
- 2,4-D fully formulated products and
- all other forms of 2,4-D.
- The goods are generally, but not exclusively, classified to the following tariff subheadings of Schedule 3 to the *Customs Tariff Act 1995*:⁵

² ‘Technical’ are the active ingredient forms of 2,4-D that have herbicidal activity, but are not fit for use by end users. Note that amine/salt forms of technical are rare as a saleable unit, as they are typically formed as part of the formulation process. ‘Formulation’ are the products that end users apply as herbicides, which contain an active ingredient form of 2,4-D.

³ ‘Mixture’ formulation category is for herbicide formulations which contain a second or third active ingredient along with the 2,4-D.

⁴ Separate identifier for the percentage strength of 2,4-D (% w/v) e.g. 62.5%, 68%, 70%, 72%, 80%. The commission may group certain categories of ‘% strength’ in formulating a final MCC.

⁵ These tariff classifications and statistical codes may include goods that are both subject and not subject to the anti-dumping measures. The listing of these tariff classifications and statistical codes are for convenience or reference only, and do not form part of the goods description. Please refer to the goods description for authoritative detail regarding goods subject to the anti-dumping measures.

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Tariff classification (Schedule 3 of the <i>Customs Tariff Act 1995</i>)			
Tariff code	Statistical code	Unit	Description
2918.99.00	43	kg	2,4-Dichlorophenoxyacetic acid (free acid) (2,4-D) (CAS 94-75-7)
2918.99.00	44	kg	Salts and esters of 2,4-dichlorophenoxyacetic acid
2918.99.00	48	kg	Other
3808.93.00	61	kg	Goods with a basis of 2,4-dichlorophenoxyacetic acid, its salts or esters.
3808.93.00	71	kg	Goods wholly of, or with basis of 2,4-dichlorophenoxyacetic acid, its salts or esters.
3808.93.00	79	kg	Other ⁶

Table 3: Tariff classification⁷

The verification team considers that the like goods manufactured by Nufarm limited are identical to, or have characteristics closely resembling, the goods exported to Australia, as they:

- **Physical likeness:** Nufarm’s 2,4-D formulations are made with a basis of 2,4-D and produced in either water (amine) or solvent (ester) based formulations with varying degrees of strength, i.e. level of active ingredient and in a variety of preparations.
- **Production likeness:** The verification team inspected Nufarm’s manufacturing facilities and observed various plant and equipment involved in the production of 2,4-D. The manufacturing process were found to be identical or closely resemble the processes used to produce the goods.
- **Commercial likeness:** Nufarm continues to sell formulated 2,4 D products to end users through an Australian reseller network. Nufarm sells its formulations to all major market segments and in all major markets for 2,4-D throughout Australia. It competes directly with imported 2,4-D products within these markets. Nufarm sells more of their ester based products to their Western Australian customers. The amine based formulation is generally sold more to the eastern states.
- **Functional likeness:** Nufarm’s 2,4-D products function in the same manner as those which are imported into Australia. Nufarm’s products are similarly made of a base of either water (amine) or solvent (ester) and diluted with water before being sprayed onto acreage. All 2,4-D formulations are specifically designed to combat broad leaf weeds.

⁶ This tariff classification is to capture products which contain 2,4-D and another herbicidal active ingredient.

⁷ Tariff classification 2918.99.00.48 was not included in Nufarm’s application as it now only applies to other carboxylic acids and not 2,4-D.

2.4 List of all MCCs

Nufarm sold and produced goods with the following MCCs during the investigation period:

Technical	Formulated
T-A-98%	F-E-68%
T-E-65.1%	F-S-70%
T-E-81.2%	F-S-62.5%
T-E-88.2%	F-E-80%
	F-S-47.5%
	F-M-30%
	F-S-50% ⁸
	F-S-80%

Table 4: List of MCCs sold during investigation period

Consistent with the previous continuation inquiry, the main Nufarm branded product range of formulated 2,4-D products sold. Table 5 below displays the relationship between Nufarm’s brand names and MCC categories.

Nufarm product	MCC
Amicide Advance 700	F-S-70%
Amine 625	F-S-62.5%
Estercide Xtra 680	F-E-68%
Estercide 800	F-E-80%
Cobber 475	F-S-47.5%
Trooper 75-D	F-M-30%

Table 5: MCC mapped to Nufarm product name

F-S-50% and F-S-80% were only sold or supplied in small volumes, while technical based products were mainly sold for export or to Australian formulators.

2.5 Preliminary like goods finding

The verification team is satisfied that:

From information gathered during the visit to Nufarm and in prior continuation inquiries, the verification team was satisfied that locally produced goods and imported goods:

- are physically alike
- compete directly with each other in the Australian market
- have comparable or identical end-uses
- are manufactured in a similar manner

⁸ This product was not sold during this period but was supplied to third parties under a research permit issued by the Australian Pesticide and Veterinary Medicines Authority.

3 Australian market

3.1 Background

In the original investigation (which commenced in 2002), and three subsequent continuation inquiries (commenced in 2007, 2012 and 2017) the applicant, Nufarm, was recognised as the sole fully integrated manufacturer of 2,4-D in Australia, in that they produce 2,4-D acid and 2,4-D esters for use in the manufacture of formulated products. Based on the information available to this inquiry, the Commission considers Nufarm to still be the only fully integrated manufacturer of 2,4-D in Australia. There are a small number of firms engaged in the production of 2,4-D esters (from imported 2,4-D acid) and formulated 2,4-D products (also like goods) using technical (intermediate) forms of 2,4-D sourced from both Nufarm and exporters.

2,4-D herbicides are used by Australian broadacre farmers as a selective herbicide, which kills many broadleaf weeds, but not grasses. Approximately 90% of the annual volume in a typical year is applied in the 'fallow' phase (which is the period between harvesting of the main crop, and the sowing of the next) of broadacre⁹ crops, such as grains, oilseeds and other crops (especially wheat, barley, canola, oats, chickpeas, lupins, lentils and sorghum).

The biggest consumers of 2,4-D are farmers who purchase from local farm merchandise retailers.

3.2 Australian market structure

3.2.1 Marketing segmentation and end uses

The Australian 2,4-D market is supplied by the Australian industry and imports. The Australian industry is made up of Nufarm, which is the sole Australian manufacturer of 2,4-D acid, and formulators. Formulators either purchase 2,4-D acid, salts and esters in their technical or intermediate form from Nufarm or from exporters. Formulated 2,4-D sold by other Australian industry members compete directly with Nufarm's formulated products.

Nufarm also produce some 2,4-D formulated products to third party providers through tolling arrangements. These products are not branded as a Nufarm product.

2,4-D herbicide segmentation is typically broken into two formulations, ester formulation and amine formulations.

Imports of ester formulations compete directly with Nufarm on a price and volume basis. Ester formulations are generally more popular in the Western Australia market.

Amine formulation imports compete indirectly with Nufarm on a product formulation basis. Nufarm have claimed that exporters cannot supply an exact equivalent formulation to Nufarm's market leading Amicide Advance 700, so these exporters will price undercut with either alternative amine formulations or ester formulations. Exporters can supply Amine 625 and Cobber 475 equivalents, while the Amicide Advance 700 formulation is under a patent

⁹ [Office of Economic Co-operation and Development – Glossary of statistical terms](#)

3.2.2 Distribution and supply arrangements

Nufarm predominantly supplies the market through short term trading agreements. However they are not binding contracts. These agreements contain specific details around rebates and discounts that each customer can be eligible for based on volume targets. The agreements also detail if advertising support is provided.

Formulated 2,4-D is generally sold to large distributors of agricultural chemicals and various other agricultural products. It is then distributed to resellers (usually the individual stores of the large distributor) where it is on-sold to end users (growers) for application onto fields.

Nufarm utilise distribution centres situated around Australia in order to have their product located close to market.

3.2.3 Demand

The 2,4-D product is driven by weather outcomes. Dry seasons typically see low demand, conversely, if there is substantial rain throughout the season, then there is a higher demand of 2,4-D.

This narrow window of demand means 90% of the volume of 2,4-D used over a 12 month period is consumed in 5 months. Nufarm stated that typically 14 to 15 million litres of 2,4-D formulated product is required in a year with high levels of rainfall. If the climate is not favourable, demand can decrease to approximately 6 to 7 million litres.

3.3 Australian market pricing

If climate conditions are favourable, increase demand for 2-4-D will cause more production of the product and support price sensitivity. Nufarm will then compete directly with the overseas competition, which can possibly drive down prices.

Nufarm compete directly with importers on 2,4-D formulation products sold under the Nufarm brand or under a tolling arrangement for third parties. Nufarm also compete with imports of 2,4-D technical (acid and intermediaries) products when supplying Australian domestic formulators.

Nufarm's price negotiations with customers are competition driven. Nufarm will offer their customers a price based on monthly price lists. Nufarm's customers may then attempt to negotiate the final price from this starting point.

Prices are predominately negotiated on a sale by sale basis, but there are tenders and specific sales campaigns that make up a small proportion of their business. Nufarm can also provide additional benefits such as development of novel formulations in their Australian laboratories (such as the soon to be released Nufarm DROPZONE Herbicide), flexibility of supply, a distribution network close to their customers, and support training programs for customers (such as farmers) on the best spray techniques and other technical aspects of 2,4-D use.

3.4 Australian market size

As discussed in chapter 3.2.1, the Australian industry consists of Nufarm, which is a fully integrated producer of 2,4-D (including technical and formulated products), and other Australian formulators who either import 2,4-D acid or intermediate material, or purchase acid or intermediate material from Nufarm.

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In estimating the size of the Australian market, the commission has relied on Nufarm’s sales data, Nufarm’s estimate of other Australian formulators’ sales, and the Australian Border Force (ABF) import database.

Figure 1 shows the annual volume of 2,4-D sold in the Australian market since 1 April 2016. The commission estimates that after the measures were last continued in March 2018, the Australian Market for 2,4-D experienced a reduction size over a 2 year period from April 2018 to March 2020 due to the well documented consecutive one in a hundred year droughts. However, the Australian market subsequently rebounded in size significantly from April 2020.

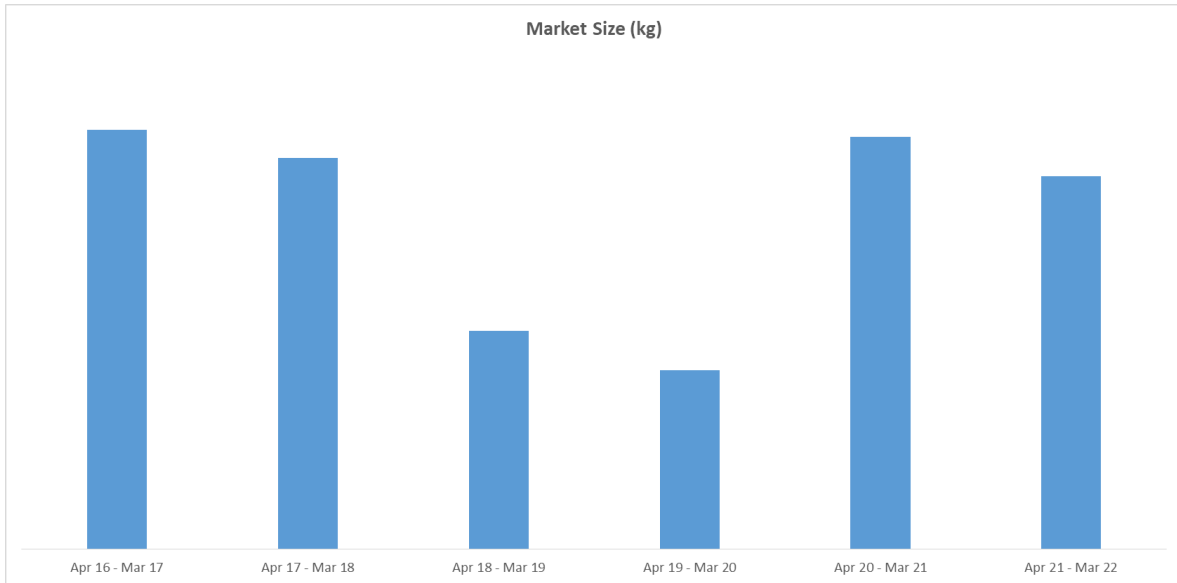


Figure 1: Australian market size for 2,4-D

The commission’s market analysis is at **Confidential Attachment 1**.

4 Verification of sales completeness and relevance

The verification team conducts verification of relevance and completeness by reconciling selected data submitted 'upwards' through management accounts up to audited financial accounts. The verification team reconciles total sales value and quantity to management reports, with particular attention given to including all relevant transactions and excluding all irrelevant transactions. The total value from the management reports is then reconciled to the total revenue figure reported in the audited income statement.

The verification team verified the completeness and relevance of the Australian sales listings submitted by reconciling these to audited financial statements in accordance with ADN 2016/30.

The verification team verified the relevance and completeness of the sales data as follows:

1. Total sales for 2,4-D, which was broken down into Nufarm branded, third party and export sales was added to the value of non 2,4-D sales and New Zealand intercompany transfers.
2. The total value of all sales was then adjusted for rebates. This value was reconciled in Nufarm's online accounting system JDE (E1). Nufarm's Corporate Performance Management (CPM) system extracts data directly from JDE at an overall consolidated business level to prepare the annual report.
3. The inquiry period (1 April 2021 to 31 March 2022) does not align to Nufarm's financial year (1 October to 30 September). Consequently, the sales value was reconciled back to the inquiry period using the whole of 2021 and 2022 year to date sales from Nufarm's accounting system JDE. The relevant periods were then calculated and reconciled to the consolidated financial reports for the 12 months to 30 September 2021, and the 6 months to 31 March 2022. These 18 months covered the inquiry period. The inquiry period was then extracted from this data.

The verification team did not identify any issues during this process. Details of this verification process are contained in the verification work program and its relevant attachments, at **Confidential Attachment 1**.

4.1 Import sales by company

Nufarm produces their own 2,4-D in their factory located in Laverton, Victoria.

Nufarm use some imported raw materials such as phenol (from a third-party local storage facility) and monochloroacetic acid (imported directly) which are used in the production of 2,4-D acid.

4.2 Export sales by company

Nufarm exports 2,4-D products, with the majority of these exports being 2,4-D in technical acid form. Nufarm also exported some formulated products to New Zealand via an intercompany transfer.

The value and volume of these sales were verified during the upwards sales process outlined at the beginning of this chapter. However these are excluded from the domestic sales listing.

4.3 Sales completeness and relevance finding

The verification team is satisfied that the sales data provided in the application by Nufarm Limited, is complete and relevant.

5 Verification of sales accuracy

The verification team verifies the accuracy of data by reconciling selected data submitted 'downwards' to source documents. This part of verification involves the process of agreeing the volume, value and other key information fields within the sales data down to source documents. This verifies the accuracy of the data.

The verification team verified accuracy of the Australian sales listings submitted in the REQ by reconciling these to source documents in accordance with ADN No. 2016/30.

The verification team did not identify any issues during this process. Details of this verification process are contained in the verification work program and its relevant attachments, at **Confidential Attachment 1**.

5.1 Related party customers

The verification team observed that Nufarm did not sell goods to related customers. The prices set for customers were driven by short term contracts where the price was determined by the market conditions. There was no evidence of non-arms' length sales.

5.2 Sales accuracy finding

The verification team is satisfied that the sales data provided in the application by Nufarm is accurate. Details of this verification process are contained in the verification work program and its relevant attachments, at **Confidential Attachment 1**.

Accordingly, the verification team considers Nufarm Limited's sales data suitable for analysing the economic performance of its 2,4-D operations from 1 April 2021 to 31 March 2022.

6 Verification of CTMS completeness and relevance

The verification team conducts verification of relevance and completeness by reconciling selected data submitted 'upwards' through management accounts up to audited financial accounts. The verification team reconciles total cost to make data to the cost of production in the management reports with particular attention given to including all relevant costs and excluding all irrelevant costs. The verification team then reconciles cost of production data, through relevant account ledgers, to the cost of goods sold figure reported in the audited income statement. Additionally, the verification team reconciles selling, general and administrative (SG&A) expenses to income statements, with particular attention given to specific expenses that the company excluded or that the verification team should exclude.

The verification team verified the completeness and relevance of the cost to make and sell (CTMS) information provided in the REQ by reconciling it to audited financial statements having regard to the procedures outlined in ADN No. 2016/30.

The audited accounts for Nufarm are a consolidated report for their global operations with 2,4-D only representing a proportion of all goods made by Nufarm.

The verification team therefore adopted an approach in which the objective was to ensure Nufarm's CTMS was consistent with the underlying source documents provided in support of its CTMS data in relation to Nufarm's inquiry period and to link that to their online financial systems.

The verification team did not however undertake a full reconciliation exercise upwards to their financial accounts. However, it was verified that that Nufarm's costs data were extracted from their JDE system to populate the CTMS spreadsheets for each MCC. JDE interacts directly with CPM, which is used to prepare Nufarm's annual reports and financial statements. This interaction was demonstrated to the verification team during the verification.

The verification team identified the issue outlined below during this process. Details of this verification process are contained in the verification work program and its relevant attachments, at **Confidential Attachment 1**.

6.1 Exceptions during verification of completeness and relevance of CTMS data

Exception 1: Exceptions during verification of completeness and relevance of CTMS data

Description: The verification team identified that Nufarm allocated SG&A to each MCC by sales volume.

Resolution: Nufarm re-allocated SG&A by sales revenue for each MCC in the CTMS spreadsheets. This allocates SG&A more accurately and in-line with the Commission's current practice.

6.2 CTMS completeness and relevance finding

The verification team is satisfied that the CTMS data provided in the application by Nufarm, including the required amendments as outlined in the exception table above, is complete and relevant.

7 Verification of CTMS accuracy

7.1 Cost allocation method

The verification team verified the reasonableness of the method used to allocate the cost information, in accordance with ADN No. 2016/30.

The verification team did not identify any issues during this process. Details of this verification process are contained in the verification work program and its relevant attachments, at **Confidential Attachment 1**.

Table 6 below outlines the allocation method applied to each cost item.

Cost item	Method applied
Raw Materials	Nufarm allocates raw material costs based on standard rate indicated in its bill of materials and adjusted every 2 months based on actual production costs incurred. Each MCC is made up of a set formula of raw materials.
Manufacturing Overheads	Based on standard costs and allocated by production quantity. Valuation adjusted every 12 months.
Labour	Calculated by work hours for 2,4-D manufacturing and then allocated to each MCC by production quantity.
Depreciation	Directly allocated to MCC's based on production quantity.
Variance	The variance between standard costs as set out in the BOM and the actual costs incurred for each cost component above was allocated to each specific MCC.

Table 6: Cost calculation method

7.2 Verification of accuracy of CTMS data

The verification team verified the accuracy of the CTMS information by reconciling it to source documents in accordance with ADN No. 2016/30.

The verification team did not identify any issues during this process. Details of this verification process are contained in the verification work program and its relevant attachments, at **Confidential Attachment 1**.

7.3 CTMS verification finding

The verification team is satisfied that the CTMS data provided in the application by Nufarm, is complete, relevant and accurate.

Accordingly, the verification team considers Nufarm's CTMS data is suitable for analysing the economic performance of its 2,4-D operations from 1 April 2021 to 31 March 2022.

8 Economic condition

8.1 Background

Anti-Dumping Notice (ADN) No. 2022/034 on the electronic public record (EPR) sets out the Commissioner's reasons for initiating the current continuation inquiry.

The anti-dumping measures were initially imposed on 24 March 2003 by the then Minister for Justice and Customs following consideration of *Trade Measures Report No.58* (REP 58).

The anti-dumping measures currently apply to all exporters of 2,4-D from China. The anti-dumping measures are due to expire on 24 March 2023.

An assessment as to whether the expiration of measures would lead, or would be likely to lead, to a continuation or recurrence of the material injury that the anti-dumping measures are intended to prevent involves a consideration of future outcomes based on an evaluation of the present position. To assist with that assessment, this chapter considers the economic condition of the Nufarm from 1 April 2018 to the 31 March 2022.

8.2 Approach to injury analysis

In the original investigation REP 58, Customs and Border Protection found the Australian industry producing 2,4-D (represented by Nufarm) had suffered the following forms of injury:

- loss of market share
- price depression
- price suppression
- reduced profits and profitability

In the previous continuation inquiry completed in 2018, (Anti-Dumping Report No. 430 (REP 430)), Nufarm's performance in the period 1 July 2014 to 30 June 2017 was examined. In this inquiry the verification team has examined Nufarm's performance in detail for the 4 year period covering 1 April 2018 to 31 March 2022. An additional 2 years of sales volume and sales value information was provided from 1 April 2016.

The analysis detailed in this chapter is based on verified financial information submitted by Nufarm, and data from the ABF import database. The Commission has not been able to assess the economic condition of the Australian industry as a whole, i.e. Nufarm and all formulators, as it did not receive cooperation from Australian formulators of 2,4-D. These formulators would also be considered members of the Australian industry.

As Nufarm is the only fully integrated producer of 2,4-D in Australia, and the largest member of the Australian industry. Based on Australian formulated sales, Nufarm account for approximately 70% of Australian industry. The commission views their economic performance is indicative of the whole Australian industry.

The verification team has assessed the economic condition of the Australian industry from 1 April 2018 using the information provided by Nufarm.¹⁰ The commission has compiled the figures presented on an annual basis for years ending 31 March. This preliminary assessment is at **Confidential Appendix 2**.

¹⁰ Sales volume analysis is from 1 April 2016.

8.3 Volume effects

8.3.1 Sales volume

Figure 2 below graph's Nufarm's sales volumes from 1 April 2016. Sales volumes from Nufarm remained stable from when measures were last continued in March 2018 until end March 2020. Nufarm experienced a significant increase in sales in year ending 31 March 2021, and a slight increase again in the year ending March 2022.

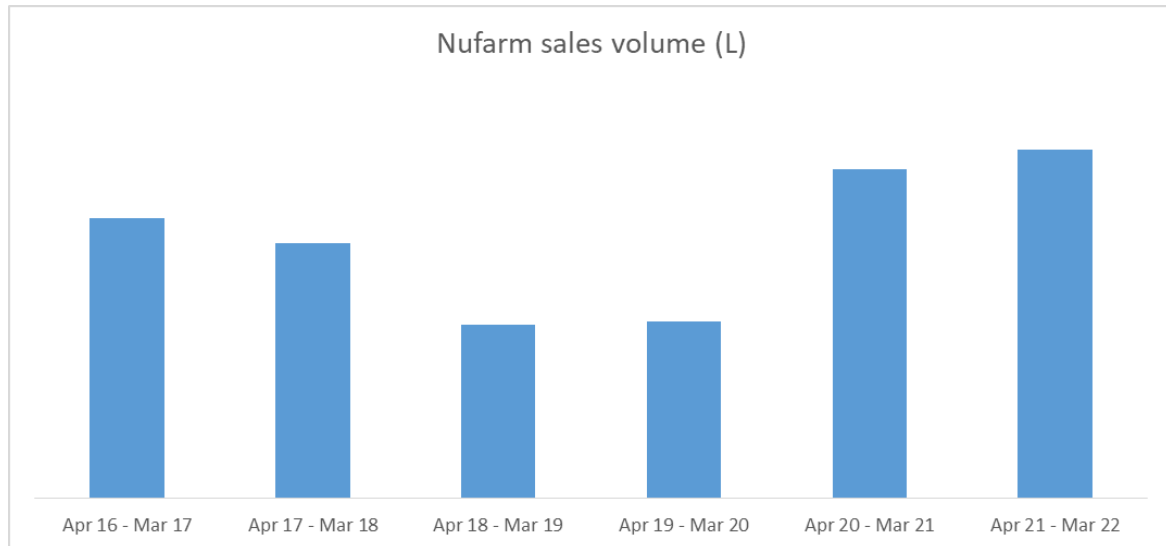


Figure 2: Nufarm's domestic sales volume of 2,4-D¹¹

These increases in Nufarm sales follow a similar trend to the overall Australian market size displayed in Figure 1. As the size of the whole market has increased, Nufarm has increased their sales.

8.3.2 Market share

The verification team has examined the market share of Nufarm, other Australian industry members made up of formulators, and importers (based on source country). Figure 3 below shows the market share for formulated products by each sector. The market share for other Australian industry members is based on their estimated sales using data provided by Nufarm and from the ABF import database. They source 2,4-D acid, esters and salts in their raw or intermediate form from both Nufarm and imported sources which are then formulated into 2,4-D end products for sale.

Since the measures were last continued in March 2018, Nufarm increased their market share from 1 April 2018 to 31 March 2021. During the same period the market share for imports of formulated 2,4-D from China have decreased to nearly zero. Nufarm did experience a decrease in market share in the year ending 31 March 2021. This appears to be at the expense of the other Australian industry members and imports from countries other than China which both increased market share. Nufarm's market share increased again in the year ending 31 March 2022.

¹¹ Nufarm domestic sales volume of 2,4-D includes Nufarm branded formulated products, formulated products sold to third parties (on tolling arrangement), imported 2,4-D acid used in formulation and technical (intermediate) products that are then formulated by other Australian industry members.

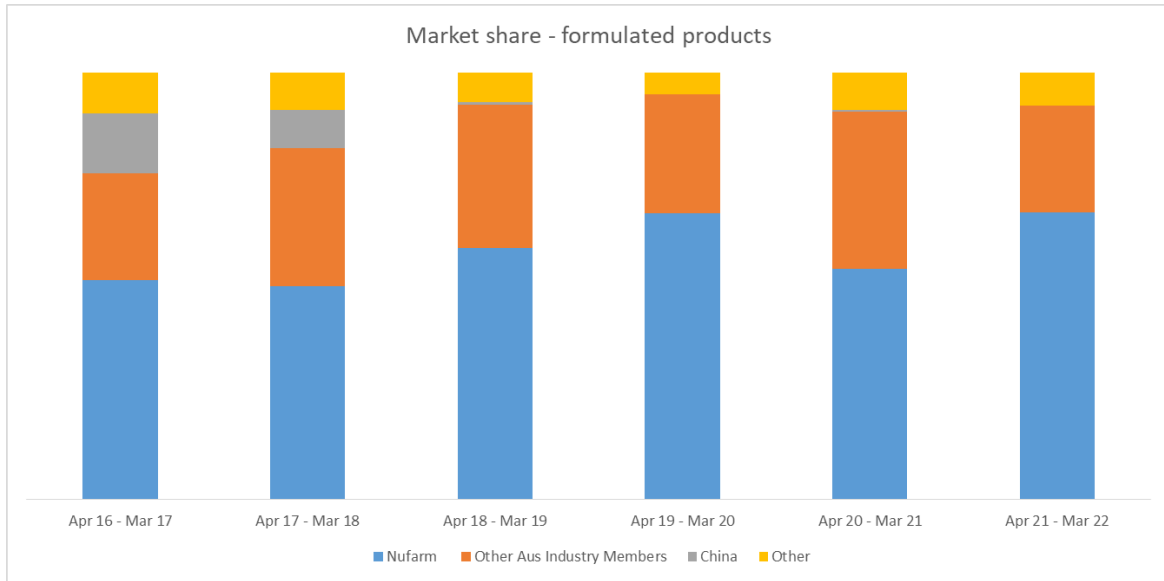


Figure 3: Market share – formulated products¹²

As mentioned above, other Australian industry members source 2,4-D technical acids, salts and esters (intermediate products), from both Nufarm and imported products to produce formulated 2,4-D products. The verification team has also examined the market share split by the source of the 2,4-D shown in Figure 4.

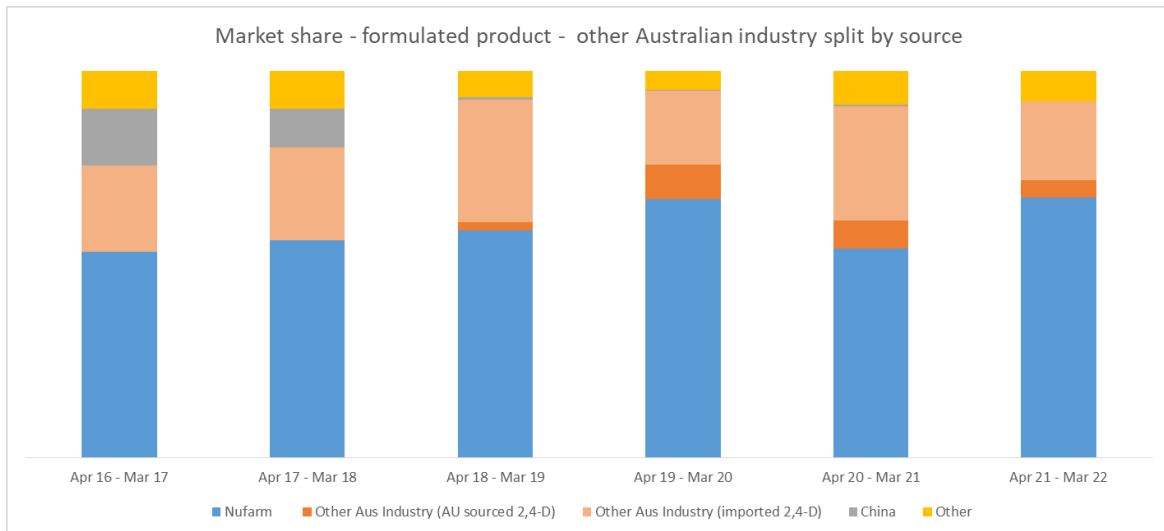


Figure 4: Market share – formulated products by source of input 2,4-D¹³

Figure 4 above shows that Nufarm started supplying input 2,4-D to other Australian industry members (formulators) from 1 April 2018. This was just after measures were last continued. While other industry members have still predominantly sourced 2,4-D from imported sources, locally sourced 2,4-D has increased its share in this area.

¹² Market share is based on formulated sales using a combination of verified data from Nufarm, Nufarm estimates of other Australian industry members (formulators), and ABF import data. Note that the 'Other Australian Industry Members' market share includes both formulated 2,4-D using technical (intermediaries) 2,4-D from Nufarm, and imported technical 2,4-D.

¹³ Other Australian Industry members imported 2,4-D data includes formulated product using imported technical 2,4-D (acid and intermediaries) from China and other countries.

8.4 Price effects

Price depression occurs when a company, for some reason, lowers its prices. Price suppression occurs when price increases, which otherwise would have occurred, have been prevented. An indicator of price suppression may be the margin between prices and costs.

Figure 5 shows Nufarm's weighted average unit selling prices and weighted average unit cost to make and sell (CTMS) from 1 April 2018 to 31 March 2022

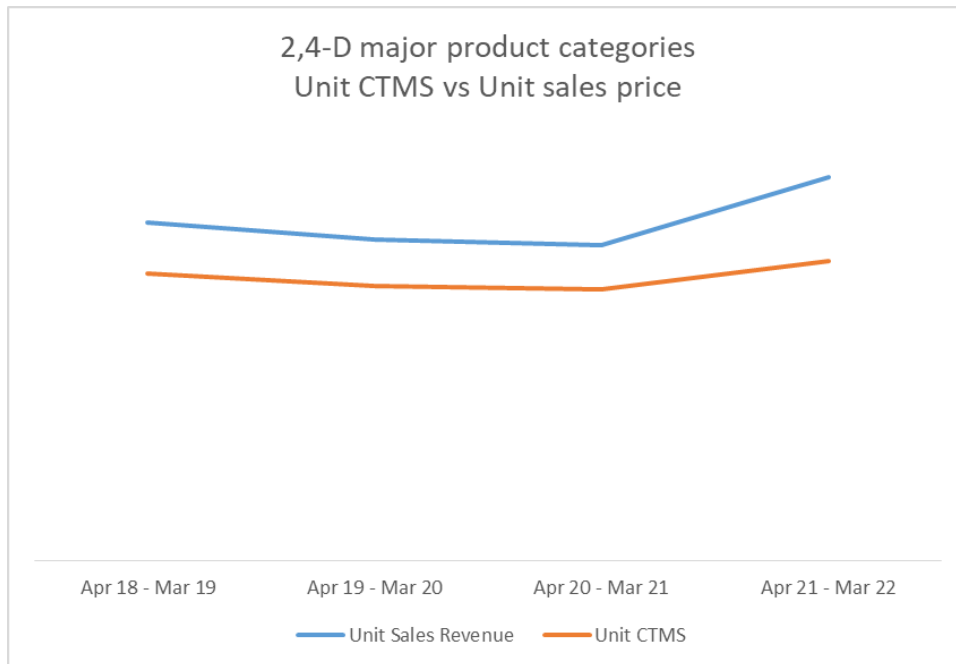


Figure 5: Unit price and CTMS – Nufarm major formulated products (AUD per kg)

Based on the trends illustrated in Figure 5, the verification team notes the following:

- Nufarm's unit selling prices reduced from 1 April 2018 to 31 March 2021, before experiencing a sharp increase in the year ending 31 March 2022
- Nufarm's CTMS also decreased over the same period, before rising in year ending 2022
- during the period, Nufarm's prices have exceeded its costs
- from 1 April 2018 to 31 March 2021, Nufarm reduced its prices only slightly at a steeper rate than its costs, although the difference was only minor
- from 1 April 2021, Nufarm was able to increase its prices at a steeper rate than its costs increased.
- this increase from 1 April 2021 is reflected in the global 2,4-D market pricing as demonstrated by the price of imported 2,4-D acid as shown in Figure 6 below. Nufarm stated that the increase in prices is driven by increased raw material and transport costs.

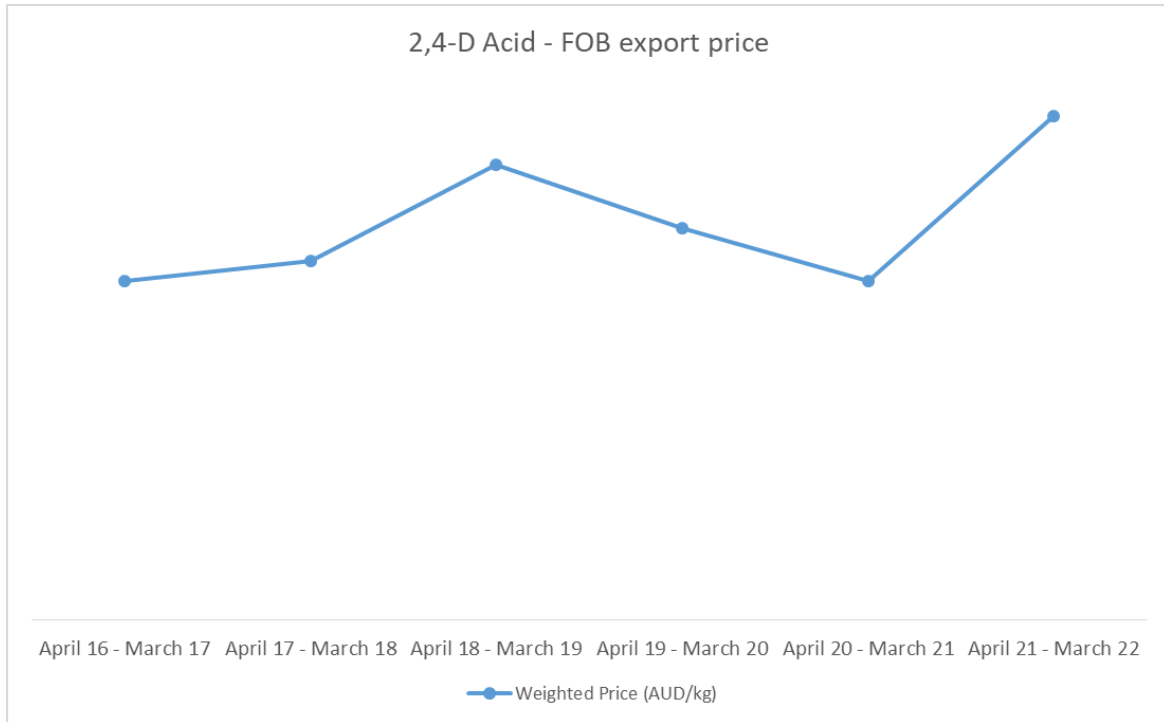


Figure 6: Export prices of 2,4-D acid from all countries to Australia

8.5 Profit and profitability

Figure 7 charts the Nufarm’s profit and profitability (expressed as a percentage of revenue) relating to its sales of like goods for its main product categories from 1 April 2018 to 31 March 2022.

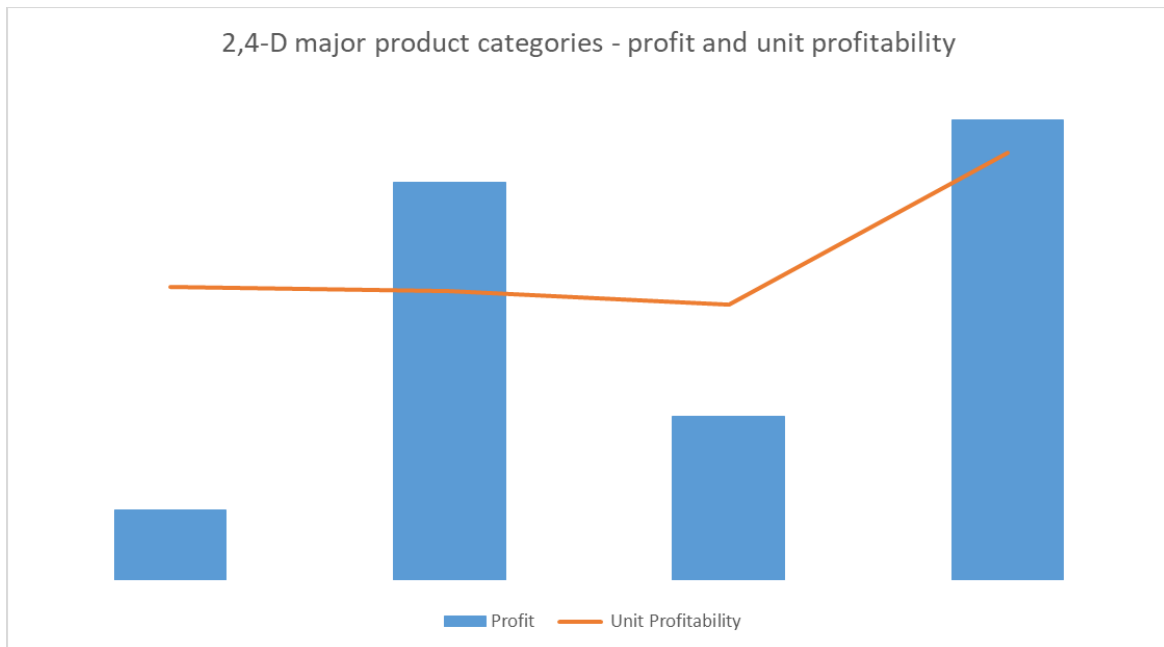


Figure 7: Total profit (AUD) and unit profitability (unit profit as a percentage of unit revenue)

Figure 7 shows that Nufarm’s profit and profitability fluctuated throughout the period examined. However, Nufarm has been remained profitable in each year over the examined period.

The verification team notes that the increase in prices at a greater rate than costs in the year ending 31 March 2022 has had a direct impact on the increase in Nufarm's profit during this period.

As noted earlier in chapter 3.2.3, demand for 2,4-D is dependent on rainfall and is focused on certain periods of the year prior to the planting of crops. As a result profit and profitability can fluctuate year on year. In years where demand decreases, Nufarm will still retain production at levels to export or cover subsequent years where demand increases. These fluctuations are outlined in Figure 8 below.

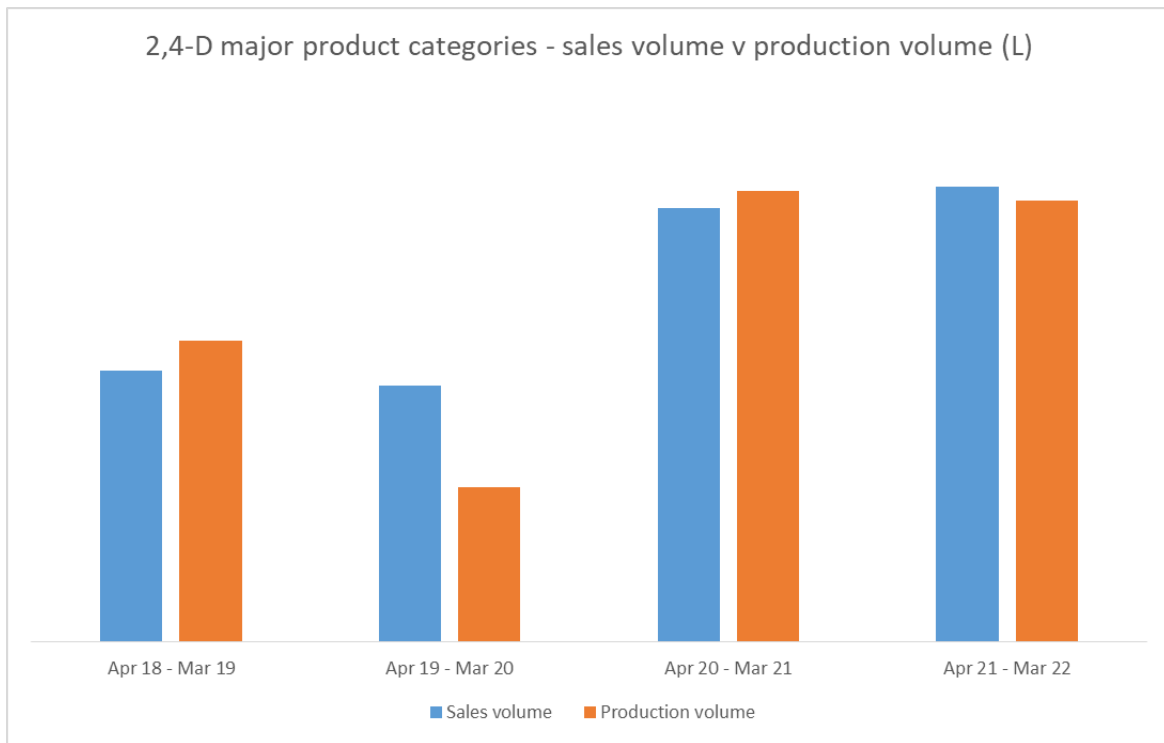


Figure 8: Sales volume v production volume

8.6 Other economic factors

At the request of the commission, Nufarm provided data in relation to a range of other economic factors that may also be indicative of injury to the Australian industry. This data covers the period 1 April 2018 to 31 March 2022:

- the value of assets employed in production of like goods and at a company level
- revenue relating to the sales of like goods and at a company level
- return on investment
- production capacity utilisation
- employment relevant to the production of like goods and at a company level
- wages relevant to the production of like goods and at a company level
- productivity

Nufarm did not make any specific claims in relation to the above factors. However the commission observes the following in regards to like goods:

- the value of assets employed in the production of 2,4-D has increased
- revenue from 2,4-D sales increased slightly in years ending March 2020 and 2021, before a significant increase in year ending March 2022.

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- there was a small reduction in return on investment in year ending March 2021 before bouncing back in year ending March 2022
- there was a reduction in employment numbers for 2,4-D acid synthesis from 1 April 2020 due to a reallocation to the formulation cost centre for employment related to ester synthesis
- capital investment for 2,4-D has reduced over the 4 years after heavy investment on new equipment between 1 April 2018 to 31 March 2019
- overall capacity of 2,4-D synthesis has remained steady over the 4 years examined
- the percentage of capacity utilisation has increased significantly for formulated products in the periods ending 31 March 2021 and 2022.

Analysis of other economic factors is at **Confidential Appendix 2**.

9 Impact of expiry of measures

9.1 Background and approach to analysis

Under the terms of section 269ZHF(2), in order to recommend that the Minister take steps to secure the continuation of the anti-dumping measures, the Commissioner must be satisfied that the expiration of measures would lead, or would be likely to lead, to a continuation or recurrence of:

- dumping and
- the material injury

that the anti-dumping measure is intended to prevent.

Accordingly the verification team sought Nufarm's views on these matters, and collected evidence to support those claims. The commission will consider this evidence further during the course of the inquiry.

9.2 Continuation or recurrence of dumping

The commission notes that there was only a small volume of exports from China during the inquiry period and volumes from China decreased significantly since the measures were last continued.

Nufarm stated in their application that the *current ad valorem* measures are effective across all types of 2,4-D. This is opposed the floor pricing methodology in place prior to March 2018, which only took into account the proportion of 2,4-D acid in the different forms and not the value of different forms of 2,4-D. For instance, the cost to make for 2,4-D salt/amine is substantially lower than 2,4-D ester even with the same proportion of 2,4-D acid input.

Nufarm submitted that the floor price was clearly ineffective given dumping was still proven to have been occurring at a rate of 22.3% to 35.3% despite a floor price being in place. Nufarm requested that the commission take this into account when assessing this inquiry.

Nufarm noted during the visit that exports of 2,4-D into Europe from China have increased since the measures were last continued. They suggest that volumes that were being exported to Australia have now been redirected to eastern Europe. This includes 2,4-D ester being sold into eastern Europe for less than 2,4-D acid. Nufarm stated that this could indicate dumping of 2,4-D into eastern Europe from China, as 2,4-D acid is cheaper to produce than 2,4-D ester, as esters are a further processed item from 2,4-D acid.

They also noted that the low barriers of entry to the Australian market would make it relatively easy for Chinese exporters to recommence dumping 2,4-D into Australia if the measures were removed. It would also enable new exporters to enter the Australian 2,4-D market.

9.3 Continuation or recurrence of material injury

Nufarm stated in their application that the Australian 2,4-D market remains price sensitive in 2022 with the number of competitors increasing since the time of the last continuation inquiry in 2017. They stated that the underlying threat for dumping remains and imports from China will quickly return as an unsustainable volume and price setter for 2,4-D goods should measures not be continued.

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In their application and reaffirmed at the verification visit, Nufarm listed the investments that they made to their 2,4-D business since 2017. This included investing \$33.8 million directly on 2,4-D acid synthesis through:

- recently completed \$26.5 million investment into 2,4-D synthesis plant maintenance and upgrades
- commenced a \$7.3 million investment to modernise the 2,4-D synthesis plant. This was supported by an Australian Government's supply chain resilience initiative grant of \$2 million¹⁴

In addition, other investments have been made over the same period totalling \$15.5 million in the plant which handles 2,4-D along with other herbicides:

- \$3.3 million for replacing esterification reactors (required to convert 2,4-D acid to 2,4-D esters)
- \$2.6 million formulation vessel and packaging equipment maintenance and upgrades
- \$9.6 million for maintenance and upgrades that benefit production across the site

Nufarm further stated in their application, that Customs and Border Protection determined in Report 189A (REP 198A) that the Australian market for 2,4-D is extremely price sensitive and that Nufarm continues to consider that selling prices are the key consideration for end-users in the decision to purchase product. It considered likely that Chinese exporters would seek to dump 2,4-D into Australia to secure sales volumes.

Nufarm submitted that should the measures be allowed to expire it is likely that Chinese exporters of 2,4-D (acid and formulated product) will reduce export prices to Australia to increase sales volumes, resulting in a recurrence of dumping and material injury that the anti-dumping measures are intended to prevent. This point was also made at the verification visit.

Their application also showed that prior to the last continuation of measures, the import market for 2,4-D acid in Australia was heavily weighted to exports from China. Nufarm's application stated that in 2017 China contributed to 78% of all imports of 2,4-D acid into Australia.¹⁵ This reduced to approximately 6% in the years from 2018 to 2021 with the import market being supplied by other countries. Nufarm stated that if the measures were to not be continued, volumes of imports from China would increase back to 2017 levels.

9.3.1 Injury caused by factors other than dumping

As mentioned in chapter 3.2.3, Nufarm stated that the level of rainfall/drought has a substantial effect on the demand for 2,4-D. Nufarm do track rainfall and use various services to try and predict rainfall over the next 6 months in order to estimate demand and budget for production. In many periods where part of the country has been in drought, other parts have experienced heavy rainfall. However drought across the whole country would heavily affect demand. This would cause injury to Nufarm's operations.

The production of 2,4-D is energy intensive. Nufarm mentioned that the increase in gas and energy prices in Australia has put pressure on Nufarm's costs and as a result prices. There is little transparency on the other hand with China's energy prices. That is whether exporters from China are paying for the same expected increases, or is their additional assistance.

¹⁴ <https://business.gov.au/grants-and-programs/supply-chain-resilience-initiative/grant-recipients>

¹⁵ Table 5, Nufarm application. EPR 604, document no. 1

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Nufarm also stated that they have suffered from global supply chain disruptions. Shipping costs to import certain input materials, such as mono-chloroacetic acid, for the production of 2,4-D have increased significantly in the last 2 years. The increase in shipping costs and availability have put upwards pressure on costs and prices.

10 Appendices and attachments

Confidential attachment 1	Verification work program
Confidential appendix 1	Australian Market Analysis
Confidential appendix 2	Economic Condition of the Australian Industry.