



**Australian Government**  
**Australian Customs and**  
**Border Protection Service**

**R E P O R T**

**INVESTIGATION INTO THE ALLEGED DUMPING OF FORMULATED  
GLYPHOSATE**

**EXPORTED FROM THE PEOPLE'S REPUBLIC OF CHINA**

**VISIT REPORT - AUSTRALIAN INDUSTRY**

**NUFARM LIMITED**

**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 CUSTOMS AND BORDER PROTECTION**

**March 2012**

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## 2 BACKGROUND

### 2.1 The application

On 21 December 2011, Nufarm Ltd (Nufarm) and Accensi Pty Ltd (Accensi) lodged an application requesting that the Minister for Home Affairs (the Minister) publish a dumping duty notice in respect of formulated glyphosate exported to Australia from the People's Republic of China (China).

The applicants subsequently provided further information in support of their application. As a result, Australian Customs and Border Protection Service (Customs and Border Protection) restarted the 20 day period for considering the application.

On 6 February 2012, following consideration of the application, Customs and Border Protection initiated an investigation. Public notification of initiation of the investigation was made in *The Australian* on 6 February 2012. Australian Customs Dumping Notice (ACDN) No. 2012/05 provides further details of this investigation and is available at [www.customs.gov.au](http://www.customs.gov.au).

Customs and Border Protection has previously conducted two investigations into formulated glyphosate from China. The most recent investigation was in 2001-02, following an application lodged by Monsanto Australia Limited (Trade Measures Report 45 refers). Nufarm was an interested party (although not the applicant) in this investigation.

There are no current anti-dumping or countervailing measures on formulated glyphosate exported to Australia from China.

### 2.2 Purpose of visit

We explained to Nufarm that the purpose of our visit was to:

- obtain general information about the Australian market for formulated glyphosate;
- gain a greater understanding of the company's manufacturing, marketing, sales and distribution processes;
- verify information provided in the application relating to the company;
- obtain additional financial data to assist in the analysis of the claimed injury to the Australian industry;
- give the company the opportunity to provide any further comments or raise any further issues it believed relevant to the investigation; and
- discuss and gather data relevant to establishing an unsuppressed selling price (USP).

A copy of the visit agenda is at **Confidential Attachment GEN01**.

During its previous involvement in Customs and Border Protection's investigations for formulated glyphosate and other agricultural chemicals (e.g. 2-4D), Nufarm has been visited and undergone verification of data submitted to Customs and Border Protection (most recently in 2008).

**2.3 Contact details**

Company:	Nufarm
ABN	37 091 323 312
Address:	103-105 Pipe Road, Laverton North, VIC 3026
Telephone:	(03) 9282 1444
Fax:	(03) 9282 1111
Date of visits:	Visit 1: 28 February to 1 March 2012 Visit 2: 20 March to 21 March 2012

The following representatives were present at various stages of the visits.

Company/Agency	Representatives
Nufarm	<ul style="list-style-type: none"> <li>• Lachlan McKinnon, General Manager, Australasia</li> <li>• Bernard Lee, Industry &amp; Government Affairs Manager</li> <li>• Michael Summons, Regional Business Manager, Roundup &amp; Glyphosate</li> <li>• Maree Porter, Regional Financial Controller, Australia and New Zealand</li> <li>• Other financial accounting and sales support staff</li> </ul>
T.R. O'Neill & Associates Pty Ltd	<ul style="list-style-type: none"> <li>• Terry O'Neill, Adviser</li> </ul>
John O'Connor & Associates	<ul style="list-style-type: none"> <li>• John O'Connor, Director</li> </ul>
Customs and Border Protection	<ul style="list-style-type: none"> <li>• Christie Sawczuk, Manager, Operations 2</li> <li>• Rod Jones, Manager, Operations 1</li> <li>• Rachel Lohan, Supervisor, Operations 1</li> </ul>

**2.4 Investigation process and timeframes**

As an applicant, we confirmed that Nufarm were cognisant of the key reporting investigation timeframes as specified in ACDN 2012/05. We provided a summary of the investigation process and timeframes as follows:

- the investigation period is 1 January to 31 December 2011;
- Customs and Border Protection will examine the Australian market from January 2008 for the purpose of analysing the condition of the Australian industry;
- a preliminary affirmative determination (PAD) may be made no earlier than 10 April 2012 – which is the first working day after the Easter public holiday. Provisional measures may be imposed at the time of the PAD or at any time after the PAD has been made, but Customs and Border Protection would not make such a determination until it was satisfied that there appears to be, or that it appears there will be, sufficient grounds for the publication of a dumping duty notice;
- a statement of essential facts (SEF) will be placed on the public record by 28 May 2012 or such later date as the Minister allows - the SEF will set out the

material findings of fact on which Customs and Border Protection intends to base its recommendations to the Minister and will invite interested parties to respond, within 20 days, to the issues raised (submissions received in response to the SEF will be considered when compiling the report and recommendations to the Minister); and

- Customs and Border Protection's report to the Minister is due on 10 July 2012<sup>1</sup>.

## **2.5 Visit report**

As Nufarm has previous experience with the verification and visit reporting process, we briefly explained to the company that we would prepare a report of our visit (this report) and provide it to the company to review its factual accuracy, and to identify those parts of the report it considers to be confidential.

We noted that, in consultation with Nufarm, we would prepare a non-confidential version of the report to be placed on the Public Record.

## **2.6 Introductory presentations**

At the commencement of the first visit, Nufarm representatives provided two PowerPoint presentations which covered:

- company background, organisational structure and product differentiation for Nufarm Australia Ltd (Nufarm Australia) and Crop Care Australasia Pty Ltd (Crop Care);
- information regarding the Australian agrochemical market, drivers for demand, market segmentation and key distribution channels; and
- information regarding the Australian formulated glyphosate market, including; market volumes and shares, market segmentation, key distribution channels and glyphosate chemistry (covering production methods, purpose and utilisation and benefits for use).

Copies of the presentations are at **Confidential Attachment GEN02**.

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<sup>1</sup> On 24 May 2012, public notification was provided regarding the Minister's decision to grant an extension to the SEF. The revised due dates for the SEF and final report are 25 June 2012 and 9 August 2012 respectively.

**3 THE GOODS**

**3.1 The goods**

General description

The goods the subject of the application (the goods) is formulated glyphosate. The application specifies that:

*"The imported product the subject of this application is formulated glyphosate, a non-selective herbicide, imported in varying strengths of the active glyphosate acid ingredient ("glyphosate technical"). A non selective herbicide is one that controls weeds in all situations"*.

Formulated glyphosate products are used for the non-selective control of weeds and are absorbed by the leaves and green tissue of susceptible plants. Translocated throughout the plant, formulated glyphosate based herbicides inhibit a specific enzyme, EPSP synthase, which plants need in order to grow. Without that enzyme, plants are unable to produce other proteins essential to growth, so they yellow and die over the course of several days or weeks.

Glyphosate formulations

The application states that in the Australian market the different formulations (of glyphosate) are described according to grams of glyphosate technical per litre (g/L) or kilogram, whereas on the global market the formulations are commonly described by the percentage of glyphosate technical contained in the formulations on a weight for weight basis.

The application contains the following indicative comparison of the glyphosate formulations described by grams per litre / kilogram or percentage basis of glyphosate technical.

Unit of product	Glyphosate content - measured as g/L or grams per kg	Glyphosate content - measured on a weight for weight basis (expressed as a percentage)
Litre (L)	360	41.6%
L	450	50.6%
L	570	61.5%
Kilogram (Kg)	690	75.7%

This table is indicative only<sup>3</sup>.

<sup>2</sup> Application for the publication of a dumping duty notice for formulated glyphosate exported from China (Application), page 7.

<sup>3</sup> Application, page 8.

The application specifies that:

*"This application is concerned with imported Glyphosate in all its fully formulated liquid forms including Glyphosate 360, Glyphosate 450 and Glyphosate 570 and the fully formulated dry form including Glyphosate 680".*

The applicants claim that:

- the imported formulated glyphosate products (at varying strengths) have the same end use;
- all formulations strengths are substitutable;
- the imported dry formulation can be substituted for liquid forms; and
- all imported formulations are applied within the approved application rates indicated on the product label, expressed on a litre per hectare basis.

At the consideration stage of the investigation, Customs and Border Protection considered that the goods covered by the application and investigation, includes formulated glyphosate in any form (i.e. not limited to liquid forms) and at any concentration (whether described according to weight of glyphosate technical by volume or percentage of glyphosate technical).

Exclusion of certain goods from investigation

The application specifies that it is important to distinguish between formulated glyphosate (i.e. the goods) and glyphosate acid, which is the primary ingredient in the manufacture of formulated glyphosate. Glyphosate acid is not the subject of the application.

Customs and Border Protection considers that the goods covered by the application, and the investigation does not include glyphosate acid.

**3.1.1 Tariff classification**

Formulated glyphosate is classified under the tariff subheading 3808.93.00 (statistical code 48) of Schedule 3 to the *Customs Tariff Act 1995*. The current rate of duty applying to the goods imported to Australia from China is 5%.

There are currently no Tariff Concession Orders applicable to the relevant tariff subheadings.

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<sup>4</sup> Application, page 8.



## 4 BACKGROUND - NUFARM AND THE AUSTRALIAN INDUSTRY

### 4.1 Corporate, organisational and ownership structure

Nufarm was established in 1957 and is an Australian Public Company (limited by shares) listed on the Australian Stock Exchange.

Nufarm is currently ranked the ninth largest crop protection company in the world and has substantial operations in North and South America, Europe, New Zealand and Asia (with 14 manufacturing sites and sales made in 100 markets). Nufarm is the largest crop protection company in Australia which manufactures and supplies agricultural chemicals, including herbicides, insecticides and fungicides products.

In Australia, Nufarm operates through the following four subsidiaries:

- Nufarm Australia – an Australian public company limited by shares which was registered in 1957;
- Crop Care – an Australian proprietary company limited by shares which was registered in 1993;
- Croplands Equipment Pty Ltd – an Australian proprietary company limited by shares which was registered in 1985; and
- Nuseed Proprietary Limited – an Australian proprietary company limited by shares which was registered in 1993.

We noted that the names of the companies listed above have changed since initial registration; however these changes are not detailed in this report.

As part of Nufarm's introductory presentation they provided a chart showing its structure, including the identities of all legal entities within the global business (**Confidential Attachment GEN02** refers). Nufarm also provided a chart displaying their corporate structure (**Confidential Attachment GEN03**).

As a manufacturer of crop protection products in Australia, Nufarm has production facilities located in Lytton, Queensland (QLD), North Laverton, Victoria (VIC) and Kwinana and Welshpool, Western Australia (WA). Nufarm also has an extensive network of twelve regional service centres in key agricultural areas, including; New South Wales, Southern Australia, Tasmania, QLD and VIC. Nufarm has Sales Managers positioned in all Australian states and territories and research and development (R&D) field teams and R&D Managers regionally dispersed.

Nufarm advised that it operates according to a service delivery and value add business model; which includes:

- manufacturing (synthesis and product formulation);
- logistics (extensive network of regional service centres);
- regulation (337 product registrations held with the Australian Pesticides and Veterinary Medicines Authority (APVMA));
- product development (significant investment in R&D programs to develop new products, innovative packaging and product mixtures);

- marketing (agency and loyalty programs); and
- sales (field sales force and after sales service and administration).

Company background as relevant to formulated glyphosate

In 2011, Nufarm's sales of glyphosate represented █% of total sales for all products<sup>5</sup> (reflecting a decrease from █% in 2010).

Two of Nufarm's Australian subsidiaries, Nufarm Australia and Crop Care are directly involved in supplying formulated glyphosate into the Australian market.

Nufarm manufacture formulated glyphosate (in liquid forms) at its plants in VIC and WA (and are also responsible for financial, R&D and logistic functions). Nufarm's production facilities in QLD are for insecticide and fungicide products. Nufarm Australia and Crop Care are responsible for selling and marketing functions in respect of formulated glyphosate. Nufarm advised that Nufarm Australia offers full service and value, strong branded proprietary products (i.e. Round Up), technology leading products and programs (including Round Up Powermax) and industry and market leaderships (i.e. stewardships). Crop Care offer lower cost products, strong branded proprietary products (i.e. Hammer) and adopt a segmented market approach (i.e. seed treatment focus).

Nufarm is the exclusive distributor of Round Up® agricultural herbicide brands in Australia, as they entered into an agreement with Monsanto in 2002 for exclusive distribution rights to these products. The original Round Up herbicide, containing the active ingredient glyphosate, was introduced in 1974 by Monsanto and its patent for these products expired in September 2000.

Nufarm also manufacture Nufarm formulated products and toll manufacture formulated glyphosate on behalf of other Australian companies.

The application states that Nufarm is also a member of Croplife Australia (an industry association).

**4.2 Accounting structure and details of accounting systems**

The accounting period of Nufarm is financial year 1 August to 31 July<sup>6</sup>.

Nufarm Australia and Crop Care's financial statements are consolidated into global annual statements and financial reports for the Australia/New Zealand (NZ) segment for Nufarm Limited, which are audited annually. This segment's results incorporate the four Australian subsidiaries and NZ Nufarm, which are reconciled through a global business 'matrix'. In 2011, sales by the Australia/New Zealand segment represented █% of total sales for all Nufarm companies / subsidiaries.

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<sup>5</sup> Including phenoxy herbicides, other herbicides, insecticides, fungicides, seeds and other. *Nufarm Limited Annual Report 2011*, page 12.

<sup>6</sup> Refer to section 8.2 for a description of Nufarm's financial quarters. Any references to dates in this report are in accordance with Nufarm's reporting period (unless otherwise specified).

As part of the application Nufarm Limited Annual Reports for 2010 and 2011 and Nufarm Australia's and CropCare's internal financial statements for years ending July 2010 and July 2011 were provided (Nufarm's Confidential Attachment A-6.3.2 of the application refers). At the visit, Nufarm provided updated internal income profit and loss (P&L) statements to January 2012.

Nufarm utilise a Business Process Analysis (BPA) financial consolidation tool to record / reconcile Nufarm's financial accounts to statutory accounts for the global Nufarm group.

To verify the data provided in the application Nufarm provided a letter from its auditors, KPMG to confirm that the data provided to Customs and Border Protection reconciled "without exception" to:

- Nufarm Australia's audited BPA trial balance at 31 July 2010 and 2011;
- Crop Care's audited BPA trial balance at 31 July 2010 and 2011; and
- Consolidation schedule for the years ending 31 July 2010 and 2011 audited as part of the Nufarm Limited group audit.

The letter and attachments are at **Confidential Attachment COM01**.

Nufarm utilises JD Enterprise (E.1) as its financial (general ledger) and management accounting system. During the verification we viewed Nufarm extract financial information in respect of sales and costs from this system, which utilises Julian dates. Nufarm advised that this system is regularly reviewed by KPMG.

Nufarm also utilises an Enterprise Resource Planning (ERP) tool to produce E-Dash and crystal financial reports to enable it to extract, manipulate and analyse financial data. During the visits for the purpose of verifying data, we viewed Nufarm interrogating the E.1 system and downloading and exporting relevant financial data into reports.

Nufarm Australia and Crop Care's accounting practices are in accordance with generally accepted accounting principles and international accounting standards. Nufarm's general ledger chart of accounts was also provided at Nufarm's Confidential Attachment A-6.3.1 of the application.

#### **4.3 Relationship with suppliers and customers**

##### Suppliers

Nufarm advised that it does not have any direct relationships with the Chinese exporters of formulated glyphosate. The application states that:

██████████ companies within the Nufarm Group have approximately ██████████ % in shareholding in ██████████

- a representative of Nufarm was a member of the Board of Directors of ██████████ until 2009-10; and

██████████ companies within the Nufarm Group have supply agreements with ██████████

However at the visit Nufarm clarified that the shareholdings and agreements relate to supply of glyphosate technical (not formulated glyphosate products) to countries other than Australia. Nufarm advised that it has made a significant investment with [REDACTED] in establishing their production facilities and processes for formulated glyphosate (which is exported to markets other than Australia).

#### Customers

Nufarm advised that it does not have any relationships with its domestic customers other than that of buyer or seller.

### **4.4 Nufarm's manufacturing facilities and product range**

#### **4.4.1 Manufacturing facilities**

Nufarm operates two manufacturing facilities in Australia at which formulated glyphosate is produced:

- North Laverton (VIC), which contains two dedicated glyphosate vessels; and
- Kwinana (WA), which contains one dedicated glyphosate vessel.

As mentioned previously, Nufarm manufacture a range of herbicide, insecticide and fungicides products at sites in North Laverton, Kwinana, Lytton and Welshpool. Plant operating capacity (with current resources available) for formulated glyphosate represents [REDACTED]% and [REDACTED]% of total production capacity at North Laverton and Kwinana respectively.

Nufarm advised that they (with Accensl) currently supply approximately [REDACTED]% of the total glyphosate market, [REDACTED] million (M) Roundup Equivalent Litres (RELS<sup>7</sup>).

Nufarm's production facilities incorporate a number of segregated manufacturing sheds, laboratories, offices and warehouse. The sites also include laboratories for quality control and formulation development. Packaging for formulated glyphosate is a shared production line. Nufarm advised that the product which is produced is either packaged on site, packaged at distribution centres or delivered in bulk.

Details in respect of Nufarm's production capacity and employment numbers are at section 8.8.

#### **4.4.2 Product range (formulated glyphosate)**

Nufarm is Australia's predominant manufacturer of crop protection products and they have 39 registrations with the APVMA for formulated glyphosate products (including the Monsanto Roundup brands). Nufarm supply formulated glyphosate to the Australian market which it:

- manufacturers;
- purchases from other Australian companies (including through sub contract manufacture arrangements);

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<sup>7</sup> Nufarm advised that they have estimated market size and market volumes for formulated glyphosate in RELs, which is a measurement used to convert products at varying concentrations to 360 g / L Roundup (the first patented formulated glyphosate product which was introduced into the Australian Market by Monsanto) equivalent L.

- toll manufactures on behalf of other Australian companies; and
- imports.

Nufarm also exports small volumes of formulated glyphosate to other countries.

As discussed at section 4.1, Nufarm is the exclusive distributor of *Roundup* crop protection products in Australia, which are supplied to distributors. Nufarm advised that they do not sell direct to end users, [REDACTED]

Nufarm manufactures formulated glyphosate with an active concentration containing glyphosate technical and a salt base of either mono-isopropylamine (MIPA) or potassium. Nufarm also supply an ammonium salt based formulated glyphosate in dry (water based granules) form, which is imported (as Nufarm do not manufacture dry product).

Nufarm has recently developed new product formulations and recently released the *Roundup Attack Herbicide with IQ* inside (registered in November 2011). Nufarm also recently developed a new chemical "*QuikPour*" 15 L cardboard container, with a large mouth and collapsible internal liner. From July 2011, Nufarm commenced supply of certain formulated glyphosate (including Roundup 360, Roundup Biactive, Roundup DST and Glyphosate CT) in the new QuikPour containers.

Nufarm manufactures formulated glyphosate in various packaging sizes and has registrations for products in multiple packaging sizes (from 200 m L to bulk containers). In 2011, Nufarm manufactured the following formulated glyphosate products (shown by packing type):

Registration No	Product name	Packaging type
360	Roundup 360	1 L, 5L and 20L
	Roundup Biactive	5 L, 20 L and 110 L
	Weedmaster Duo	1 L, 5 L, 10 L, 20 L, 110 L and 1000 L
450	Gladiator 450	20 L, 110 L and 1000 L
	Glyphosate CT	25 L, 20L 110L and 1000L
	Roundup CT	20 L, 110 L and 1000 L
470	Roundup DST	20 L, 110 L, 500 L and 1000 L
510	Gladiator Maximus	20 L, 110 L and 1000 L
540	574	500 L and 1000L
	Credit + Bonus (Kit)	20 L, 110 L and 1000 L
	Credit	20 L, 110 L and 1000 L
	Gladiator Optimax	20 L, 110 L and 1000 L
	Roundup Powermax	15 L, 20 L, 110 L, 500 L, 1000 L and bulk
570	Mon 76453	20 L
	Nul 2359	15 L
	Roundup Attack	15 L, 20 L, 110 L , 500 L and 1000 L

Nufarm also toll manufacture formulated glyphosate with glyphosate technical sourced by Nufarm or supplied by the customer. These toll manufactured products are registered by other Australian companies and Nufarm manufacture products on behalf

of these companies. In 2011, Nufarm toll manufactured the following formulated glyphosate products (shown by packing type):

Formulation (g/L)	Product Name	Product registrant	Packaging type
360 g/L	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]
510 g/L	[REDACTED]	[REDACTED]	[REDACTED]
540 g/L	[REDACTED]	[REDACTED]	[REDACTED]

Arrangements with other Australian manufacturers

Nufarm advised that it manufactured formulated glyphosate which was shipped to other Australian formulators, which was recorded in its accounting system as goods manufactured by a third party. For example, during 2010-11 to 2011-12, Nufarm's accounting system highlights that it sub contracted [REDACTED] Pty Ltd ([REDACTED]) to pack off 574, 800 L of formulated glyphosate 540 g/L (product code 574). Nufarm advised that [REDACTED] is not the manufacturer of the goods, as they only re-fill re-usable containers from a bulk storage tank. [REDACTED]

Imports

In 2011, Nufarm imported formulated glyphosate 690 g/L (Roundup Ready and Roundup Ready Plant Shield) from Argentina, which controls annual and perennial weeds for Roundup Ready technology cotton crops. [REDACTED]

Exports

In 2011, Nufarm manufactured and exported formulated glyphosate 360 g/L (Weedmaster Duo and RoundUp) and 450 g/L (Glyphosate CT). These exports represented less than 1% of total volume of all formulated glyphosate sales in 2011.

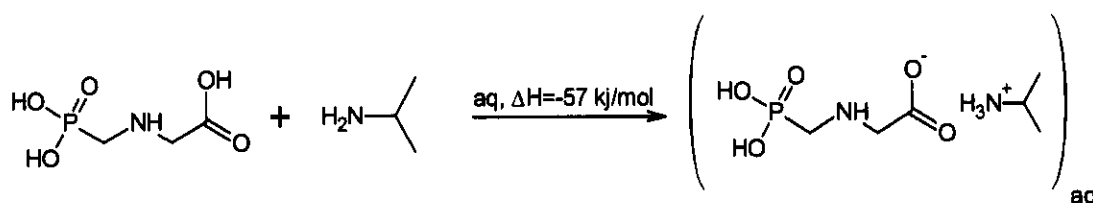
**4.4.3 Nufarm's formulated glyphosate production process**

As specified in the application, Nufarm's formulated glyphosate production process is as follows:

*"The initial stage of the process involves the amination of glyphosate acid and mono- isopropylamine to produce the isopropylamine salt of the N-phosphonomethylglycine molecule (i.e. the active ingredient). The amination process is essentially a controlled acid-base chemical reaction. The amination process is an exothermic reaction that generates significant heat.*

*The amination process is carried out in large purpose built reaction vessel that incorporates cooling equipment and microprocessor based process controls to maintain the temperature of the chemical reaction. This facilitates production in large-scale batches. The vessels are also equipped with sulphuric acid scrubbers to prevent emission of noxious fumes of mono-isopropylamine to the atmosphere.*

The following depicts the chemical reaction that occurs during the amination process.



The second stage of the process involves formulation, where the isopropylamine salt of glyphosate is blended with surfactants and other ingredients to produce a glyphosate herbicide at the desired level of concentration (i.e. between 7.2 – 540 grams per litre). The addition of surfactants facilitates the absorption of the active ingredient by plants. Without the addition of the surfactants, plants do not readily absorb the isopropylamine salt of glyphosate.

After formulation, the glyphosate herbicide is packaged in a variety of retail containers ranging from 250 ml to 1000 litre. The herbicide is also loaded into bulk containers for transport to refilling stations located through regional Australia<sup>8</sup>.

We noted that the production process described above relates to glyphosate with a MIPA salt base. However in the application (at Confidential Attachment A-3.6, a diagram was provided which illustrated the production process of formulated glyphosate with an ammonium or potassium salt base (Confidential Attachment COM02 refers)).

During the verification visit we conducted an inspection of Nufarm's production (and warehousing) facilities at North Laverton. As a result of the information provided by Nufarm and our inspection of Nufarm's production facilities, we are satisfied that Nufarm:

- produces formulated glyphosate in the method described above; and
- undertake at least one substantial process of manufacture in producing formulated glyphosate in Australia.

During 2008 to 2011, Nufarm manufactured glyphosate which it manufactured or toll manufactured (with glyphosate technical sourced by Nufarm or the toll customer). For the purpose of this report to distinguish these products they are herein referred to as:

- "Nufarm's own sales" – formulated glyphosate manufactured by Nufarm (with a Nufarm label);
- "Third party sales (Nufarm technical)" – toll manufactured for a third party with glyphosate technical sourced by Nufarm; and

<sup>8</sup> Application, page 10.

- *"Third party sales (third party customer)" – toll manufactured for a third party with glyphosate technical supplied by a third party.*

#### 4.5 Like goods

Like goods are defined 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"<sup>9</sup>.

The application states that:

*"The imported goods are alike to locally produced formulated glyphosate as they each possess the following essential characteristics:*

- (i) Glyphosate technical is the dominant active ingredient in the locally produced formulated glyphosate products and the imported formulated glyphosate product;*
- (ii) The various formulations represent variations in the presentation of the glyphosate technical for both the locally produced and imported goods;*
- (iii) The production of formulated glyphosate (for both locally produced and imported goods) is a relatively standard process.*
- (iv) All glyphosate formulations whether locally produced or imported have the same end use.*
- (v) All glyphosate formulations whether locally produced or imported generally have the same channels of market distribution.*
- (vi) There is an absence of any clear dividing line in terms of market segmentation between the various formulations and product substitution can occur between the formulated products (whether locally produced or imported)"<sup>10</sup>.*

Nufarm advised that the formulated glyphosate produced domestically are like goods to the formulated glyphosate imported from China and that there is no discernable difference between the products. Nufarm reiterated that:

- Formulated glyphosate is a non selective herbicide, where glyphosate technical is converted into a soluble form at varying concentrations, through the addition of water and surfactants.
- When packaged all products (imported and local) at varying formulation strengths are labelled for identical uses.
- The AMPVA controls registration and supply of formulated glyphosate in the Australian market. All imported and local formulations (at varying strengths) are applied within the approved application rates indicated on the product label, expressed on a litre per hectare basis.

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<sup>9</sup> Subsection 269T(1)

<sup>10</sup> Application, page 10.



- The different formulated product can be interchanged, as the end user can adjust application and usage rates. Nufarm advised that there is variability in the quality of the surfactants used to produce formulated glyphosate (in particular for the Chinese imports).

We sought Nufarm's views on the different salts of glyphosate (i.e. MIPA, potassium and ammonium) and whether these are all like goods.

In their submission dated 19 March 2012, Nufarm claim that all salts of glyphosate are like goods. Nufarm advised that formulated glyphosate with an IPA salt base (is the predominant product in the market, as it is highly effective. It noted that the costs of potassium salt are slightly lower where as the ammonium salt cost are slightly higher (however with increased efficacy in killing weeds). In advice to Customs and Border Protection dated 27 April 2012, Nufarm stated that in the Australian market formulated glyphosate with an ammonium salt base are dry products, as the liquid products with this salt base are not registered (and therefore illegal).

We sought Nufarm's views on whether 62% isopropylamine (IPA) salt forms of glyphosate (manufacturing concentrate) were like goods. This is an intermediary product produced following the first stage of the animation production process, where surfactants and water have not been added. Nufarm advised that this product requires further formulation (with addition of surfactants and dies etc). Nufarm does manufacture this product (in minor volumes). In a submission provided at the second visit (dated 19 March 2012), Nufarm claim that the IPA salt 62% glyphosate products are like goods with the same ultimate end use (as a herbicide). Nufarm indicated that currently, based on market intelligence, significant volumes of this product are not being imported.

#### **4.5.1 Preliminary assessment**

Customs and Border Protection examined the evidence presented in the application and concluded in CON 183 that the Australian industry produces like goods to the goods the subject of the application.

Customs and Border Protection considered that the applicants demonstrated that:

- the primary physical characteristics of imported and locally produced formulated glyphosate are similar;
- the imported and locally produced formulated glyphosate are manufactured in a similar manner;
- the imported and locally produced formulated glyphosate are commercially alike as they are sold to common end users; and
- the imported and locally produced formulated glyphosate are functionally alike as they have the same end-uses.

Based on the information in the application, information provided and verified at the visit to Nufarm and our tour of Nufarm's production facilities we consider that the goods produced by Nufarm are like goods to formulated glyphosate imported from China.

**4.6 Annual turnover**

Nufarm's annual net revenue (\$AUD) for its Australian companies for domestic and export products (including formulated glyphosate) was submitted with Nufarm's Confidential Appendix A6 as summarised below for the 2011 financial year:

Product market	Gross Revenue for glyphosate	Rebates	Net sales revenue for glyphosate	% of total net revenue for glyphosate
Nufarm sales - domestic				
Third party (all)				
Export				
Total				

Export sales

We noted that export sales of like goods have been at minor quantities and values since 2007.

Revenue reconciliation to BPA and statutory global group accounts

In order to verify Nufarm's total revenue and profits for all sales (as shown in application appendices) to audited financial reports / statutory accounts, Nufarm provided a comprehensive financial reconciliation package (**Confidential Attachment COM03** refers). This package shows total revenue and profit figures for Nufarm's financial year 2010 and FY 2011 linking through:

- the Nufarm company group's complex global business matrix to the audited figures in Nufarm's Annual Report;
- results for Nufarm Australia and Crop Care as reported in the Australasian segment;
- results for Nufarm Australia and Crop Care as recorded in the BPA consolidation tool;
- results for Nufarm and Crop Care shown in the E.1 system; and
- data provided in Nufarm's application appendices.

Within the reconciliation package, Nufarm noted variances of figures (which were not significant) and provided appropriate explanations (including treatment of sales made into regions by different Nufarm companies). Copies of the BPA and E.1 income statements and general ledger accounts were also provided.

Working through the reconciliation package with Nufarm, we are satisfied that revenue and profit data provided to Customs and Border Protection is reliable, accurate and complete and can be linked to audited financial reports.

**5 AUSTRALIAN MARKET**

**5.1 General**

The application states that formulated glyphosate is used as an herbicide for broad-acre weed control, along with certain horticulture and home and garden applications (requiring weed control).

**5.2 Australian manufacturers**

The application identified the following eleven companies, other than Nufarm and Accensi, as Australian toll manufacturers of formulated glyphosate.

<b>Company</b>
Autopack Pty Ltd
Bayer Australia Pty Ltd
Cheminova Manufacturing Pty Ltd
Chempak (Aust) Pty Ltd
Eureka Manufacturing Pty Ltd
Gemax Pty Ltd
Imtrade Australia Pty Ltd
Intec Industries Pty Ltd
Loral Ipsum Pty Ltd
Opal Australasia Pty Ltd
Rygel Australia Pty Ltd

Nufarm provided estimates of the production capacity, operating rates and production volumes (for formulated glyphosate 360 g/L equivalents) of the other identified members of the industry (other than Nufarm and Accensi), based on market intelligence. The applicants identified market shares for the other Australian producers in 2010-11, which were not significant.

**5.3 Imports (Nufarm's views)**

Nufarm advised that the Australian market for formulated glyphosate is supplied through local production and imports from a number of sources, mainly China, but also including Argentina, Indonesia, Malaysia, New Zealand and Singapore. Nufarm advised that over the past couple of years there has been a shift in market volumes and size towards Chinese imports. It noted that historically formulated glyphosate was imported from Israel, Malaysia and Vietnam.

The application states that import data for formulated glyphosate is not individually identifiable in published Australian Bureau of Statistics data. Nufarm therefore sourced export data for China (from [redacted])<sup>11)</sup> and for all other countries (from [redacted]) for the purposes of estimating import volumes.

Nufarm estimated that imports from China had increased their share of the market from approximately 5% in 2009-10 to approximately 45% in 2010-11. Nufarm advised

11 [redacted]

that this increase in market share occurred as total market size increased from 100 RELs to approximately 115 M RELs. Nufarm advised that most of the formulated glyphosate was exported from China to Australia in 20 L and 1,000 L containers.

**5.4 Market size**

Nufarm estimated that the Australian formulated market size for 2010-11 was approximately [REDACTED]. Nufarm advised that their market size estimation was based on the following:

- Nufarm’s own production and sales volume;
- market intelligence for sales volumes of other Australian formulators; and
- [REDACTED] export data in respect of exports to Australia obtained from [REDACTED] and [REDACTED]

Nufarm stated that the formulated glyphosate market size had increased from [REDACTED] in 2007-08, which predominately reflects increased demand due to increased rainfall and changed agricultural farming practices (evidenced through increased conservation tillage (as opposed to ploughing or chemical tillage)). Nufarm advised that market demand for formulated glyphosate for the period August 2011 to January 2012 has been below forecasts, however it was anticipated that the total market size for 2011 to 2012 would be comparable to the preceding financial year (as the market performance was expected to improve in the second half of the year). Nufarm advised that the market size was very dependant on seasonality (and rainfall).

**5.5 Market segments and distribution arrangements**

Market segmentation

Nufarm identified the following five market segments in the Australian formulated glyphosate market (in order of market size):

Segment	Weed control	% of market	Peak period	Usage rates	Application
Pre plant winter cropping	Broadacre weed control	[REDACTED]	March to June	Low	Conservation tillage
Fallow weed control	Broadacre weed control	[REDACTED]	October to January	High	Moisture conservation
Pre plant summer cropping	Broadacre weed control	[REDACTED]	October to December	High	Conservation tillage
Industrial/retail and home	Railways, mining, forestry weed control	[REDACTED]	All year	Very high	Focus on perennial weeds
Horticulture	Trees, nuts, vines and vegetable weed control	[REDACTED]	Autumn and spring	High	Spraying programs

Nufarm explained that formulated glyphosate products are supplied to the agricultural sector for planting and weed control purposes and to retail and horticultural market segments and that preferences/customer choice for formulated glyphosate products may vary between market segments. Nufarm advised that in Australia there is approximately 21 M hectares of crops to which formulated glyphosate is applied (at

approximately [redacted] applications in the winter pre plant period and [redacted] applications during the summer/fallow period).

Distribution

A diagram of distribution / supply channels to market was provided in the presentation by Nufarm (as provided in the application).

This diagram provides a description of each of the market suppliers follows:

- Traders / importers – traders are responsible for importing fully formulated glyphosate products from Asian manufacturers and then selling to other suppliers, distributors and end users.
- Formulators - are responsible for importing glyphosate technical to formulate glyphosate products in house and then sell the formulated product to other suppliers and distributors. Nufarm formulates products for its own sales whilst Accensi and Nufarm also formulate glyphosate on behalf of local suppliers in Australia.
- Other suppliers - are responsible for purchasing formulated glyphosate products from traders and other formulators and selling to distributors.
- Distributors - Distributors act as traders and import fully formulated product from Asian manufacturers, but more generally are responsible for purchasing formulated product from traders, formulators and other suppliers.

The application noted that distributors can act as traders and import fully formulated product from Asian manufacturers, but are more generally responsible for purchasing formulated product from traders, formulators and other suppliers.

The majority of formulated glyphosate is supplied and sold through distributors to end-users; approximately [redacted] M RELs ([redacted]%) is sold direct from traders to end users. Nufarm identified the following major distributors and their estimated market shares as:



Nufarm advised that traditional market distribution channels have changed over the last few years, with an increasing number of independent distributors (trading through the internet).

**5.6 Product segmentation**

Nufarm advised that there is a commercial (product) differentiation for glyphosate formulations based on active ingredient strength. It noted that formulated glyphosate 360 g/L is predominately supplied to the horticulture / retail market and is not supplied to the broad acre market segment. It noted that the product most utilised in the Australian market was formulated glyphosate 450 g/L, with increasing volumes of 510 g/L and 540 g/L formulated glyphosate. It noted that this transition was due to

product branding and efficacies associated with products with higher active ingredients and larger containers sizes.

Nufarm stated that their Glyphosate CT formulated glyphosate product (or Gladiator CCA) as well as other 450 gram per litre products were preferred in the fallow market segment.

### 5.7 Factors influencing market performance

Nufarm stated that formulated glyphosate has become the most predominantly utilised herbicide (globally). Formulated glyphosate has a low cost as a farming input and has a superior performance to use rate to other products. Glyphosate's costs per hectare are low in comparison with other farm inputs. Nufarm advised that formulated glyphosate was an environmentally safe product that was specific to plants, required lower dose rates in comparison with other products and had low user toxicity.

Nufarm advised that the Australian formulated glyphosate market is a unique market as a result of Australia's dry environment which is seasonality demand driven. It noted that given large geographical size of Australia, that suppliers needed connectivity with their end users (local farmers).

At the visit Nufarm identified the following key factors affecting agrochemical markets, including formulated glyphosate:

- volatility in cost of goods and profitability;
- climatic variability (and scarcity of natural resources (including water));
- changing agricultural and farming practices (including water use, crop efficiencies);
- regulatory impact;
- growth in genetically modified (GM) crops;
- corporate and stocking policies; and
- changed distribution channels and market participants.

#### Volatility in cost of goods and profitability

Nufarm advised that volatility in costs and prices effect market demand / supply and inventory costs for formulated glyphosate. It advised that during 2007 to 2009, significant price volatility (in particular price decreases) for glyphosate occurred due to global supply shortages for glyphosate technical, simultaneous with an increasing number of Chinese glyphosate manufacturers and suppliers. It noted that some price stability was achieved following increased regulation of domestic manufacturers in China, which rationalised supply (reducing the number of suppliers).

#### Climatic variability (and scarcity of natural resources (including water) and changing agricultural and farming practices)

The application noted that the Australian market for formulated glyphosate has grown significantly since 2007-08, reflecting increased market demand due to a change in local climatic conditions that supported improved conditions for use (i.e. increased rainfall equals increase in weeds). Earlier season rainfall has also meant accelerated weed growth, necessitating higher formulated glyphosate usage rates. As mentioned previously changed agricultural practices has resulted in significant increased used of formulated glyphosate. Nufarm noted that future growth in the market may be impacted on increased weed resistance to formulated glyphosate an growth of GM crops.