A study of input prices in the agricultural sector in the European Union

No common prices for farmers in the common market?

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CEJA, the European Council of Young Farmers, was founded in 1958 in Rome by 6 national agricultural organisations. CEJA is now made up of 23 national organisations in the 15 Member States of the European Union. These organisations represent the interests of a million young farmers throughout the community.

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1. executive summary

An EU-wide survey conducted by CEJA earlier this year highlights significant differences in conditions of production for European farmers, as the cost of fertilisers, plant protection products and agricultural machinery, all vital ingredients of efficient agricultural production, vary greatly from one member state to another.

CEJA examined the price of 54 different products crucial for agricultural production and found that farmers could in theory buy the same equipment at a significantly lower price from neighbouring countries.

Often more than double the price

The largest differences in price, on average, appeared in the plant protection sector. Linuron, a widely-used herbicide throughout the EU, cost almost more three times more in Germany than in Portugal and Danish farmers living on the border with Germany could purchase the chemical for 127 per cent less than at home.

Agricultural machinery, for which young farmers need to regularly invest vast sums of money in order to remain competitive, is a sector with similar problems. CEJA found that farmers living in the UK paid over 40 per cent more for the same harvester than their Spanish colleagues.

Urea Prill, a key fertiliser used for heavy soils, was, at the time of the study, 35 per cent more expensive in Ireland than in the UK. A number of countries, notably Ireland, seem to be put at a particular disadvantage with the rest of Europe.

CEJA urges the Commission to further investigate the situation

Although taxation, local market discrepancies, transportation costs and other factors may partly explain the differences, CEJA believes that the single market is not operating and the current situation is a direct threat to the competitiveness of young European farmers.

Certain farmers are faced with an unfair disadvantage over their European neighbours when purchasing key agricultural products. CEJA therefore urges the European Commission, responsible for the supervision of the European common market, to further investigate the situation.

2. statement by John Lee President of CEJA

Part of CEJA's mission is to represent our membership and to communicate with European institutions about developments in the Common Agricultural Policy affecting young farmers.

CEJA is also about being an advocate for young farmers, who lead a daily battle to remain competitive internationally, whilst facing significant investment costs throughout the European Union.

With the following survey, CEJA's objective is to alert the European Commission, and in particular the forthcoming Germany Presidency, on the great differences in input prices paid by farmers.

Whereas their products are sold at similar prices, farmers sometimes have to pay much more for the same fertilisers, pesticides, or machinery used by colleagues in other member states.

This study is a clear reflection of our responsibilities, which are to represent the interests of young European farmers in a spirit of cooperation.

John Lee
President

3. statement by Liam Hyland MEP

I welcome this study on an area of the common market which has, until now, been overlooked.

I think it is important that the European Commission should further investigate CEJA's concerns.

CEJA's survey also indicates that Irish farmers, when buying certain products, face particular competitive disadvantages.

I am glad that CEJA has taken the bold step of publishing these studies and I will be looking into possible solutions at a national level.

Liam HYLAND MEP
Member of the
Committee on
Agriculture and Rural
Development

4. introduction

Thanks to intensive and prolonged regulatory efforts under the Common Agricultural Policy, the principles of free circulation and harmonisation of prices for agricultural products have been greatly enhanced in the European Union.

However, the Conseil Européen des Jeunes Agriculteurs (CEJA), decided to launch a study into input prices in the agricultural sector after its membership alerted the representative body about significant price differences in agricultural equipment and products between Member States.

A direct threat to the competitiveness of European farmers

CEJA was concerned that this would represent a direct threat to the competitiveness of farmers in countries affected by higher input prices. In early 1998, the Secretariat decided to look at the problem more thoroughly, and organised for members of staff to collect the necessary data.

Three key sectors

The conclusions, presented below, focus on three key sectors for agricultural production: fertilisers, plant protection products, and agricultural machinery. CEJA, through the experience of its members, knows how crucial the products chosen are to efficient crop production.

CEJA's research found that there are differences of up to 37 per cent for the same fertiliser product between two countries, of up to 224 per cent for a widely used herbicide, and up to 40 per cent for agricultural machinery.

Where do the price differences come from?

A number of factors contribute to price differences, including transportation costs, taxation, and local market differences. However, the report does not try to answer this question. It does not point the finger at anybody in particular either, other than this demonstrates, in view of the importance of the price differences revealed, an inefficient operation of the single market.

CEJA chose to look at a broad range of products. For fertilisers and plant protection products, CEJA also chose not to mention the brand names of the chemicals analysed.

CEJA hopes, with this study, to contribute to the debate on European agriculture at a time when the future of the sector is being discussed at the highest levels of the EU.

5. input prices for fertilisers

This study analyses the percentage differences in the price of some of the most important fertiliser products in different EU member states over the period December 1997 – August 1998[1].

5.1. CAN 27% (CALCIUM AMMONIUM NITRATE)

Importance of the product:

So crucial is nitrogen to the agricultural sector that in 1995/96 of the 9.68 million tonnes consumed in the EU, Belgium used 167,000 tonnes, Germany 1.769 million tonnes, Ireland 415,000 tonnes and The Netherlands 365,000 tonnes.

Essential to neutralising soil acidity and optimising growth and yield, Calcium ammonium nitrate (CAN) is a mixture of Ammonium Nitrate and calcium/magnesium carbonate. It contains a nitrogen concentration ranging from 25% to 28%, which is immediately available to plants. In the EU it is the main source of nitrogen (N) (it has the largest share - 27% - of Europe's total nitrogen consumption). It has it also contains approximately 10% calcium (Ca)[2].

Conclusion:

The statistics indicate a price percentage difference of up to 28.1% for 100Kg of CAN 27% in July 1998 between Ireland and The Netherlands.

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[1] Fertiliser sales in the European Union:

1. EU internal trade sales, 1997/98:
- Straight N: 948.6 million ECU; P2O5: 58.5 million ECU; Multinutrient: 778.6 million ECU

2. Imports into EU 15 by region of origin in million ECU, 1997/98:
- Straight N: CE & Baltic 320.9; NIS 150.0; EFTA 48.1; ROW 89.2
- Straight P2O5: CE & Baltic 20.6; NIS 11.2; EFTA 0.2; ROW 128.0
- Multi-Nutrient: CE & Baltic 193.0; NIS 165.0; EFTA 132.2; ROW 286.7
- Total Fertiliser: CE & Baltic 534.5; NIS 326.2; EFTA 180.5; ROW 504.0

The above values correspond to the fertiliser products compiled by EFMA and not to all products classified by Eurostat as fertilisers. These values include quantities used for technical purposes.
EFMA: Avenue E. Van Nieuwenhuyse 4; B-1160 Brussels
Tel: +32 2 663 31 46; Fax: + 32 2 675 39 61

[2] Source : EFMA (*The Fertiliser Industry of the EU*; June 1997)

It is clear that Ireland is by far the most expensive European state for CAN 27%. Unlike neighbouring countries, such as Belgium and The Netherlands, or Germany and The Netherlands, where farmers can easily import cheaper fertiliser products from neighbouring states, it is more difficult for Irish farmers to find alternative sources of purchase.

Differences in price (per 100Kg CAN 27%):

(Numbers to one decimal place)

COUNTRIES COMPARED	July '98	Feb. '98	Dec. '97	Most expensive state
	%	%	%	
Belgium and Germany	2.3	2.7	3.3	Belgium
Belgium and Ireland	25.8	25.3	19.7	Ireland
Belgium and Netherlands	3.1	2.2	3.8	Belgium
Germany and Ireland	27.5	27.34	22.4	Ireland
Germany and Netherlands	0.2	0.5	0.5	Germany
Ireland and Netherlands	28.1	27	22.8	Ireland

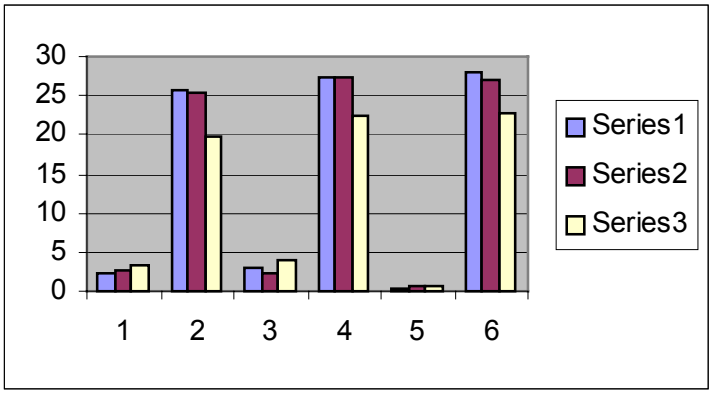


Chart 1: percentage difference of 100Kg CAN 27% between EU states

Series 1 = July 1998
Series 2 = February 1998
Series 3 = December 1997

COUNTRIES COMPARED
Columns 1 = Belgium / Germany
Columns 2 = Belgium / Ireland
Columns 3 = Belgium / Netherlands
Columns 4 = Germany / Ireland
Columns 5 = Germany / Netherlands
Columns 6 = Ireland / Netherlands

5.2. AN 33.5% (AMMONIUM NITRATE) and AN Import

Importance of the product:

Ammonium Nitrate (AN) is a concentrated source of nitrogen (33.5% to 34.5% Nitrogen). Of the EU member states it is most commonly used in France, Italy, Spain and the UK[3].

In 1995/96 of the 9.68 million tonnes of nitrogen consumed in Europe, 21% was ammonium nitrate essential for the production of abundant crops. France used 2.392 million tonnes of nitrogen and Spain 1.037 million tonnes.

Conclusion:

Prices for Ammonium Nitrate are higher in France. The statistics indicate in December 1997 a price percentage difference between France and Spain of 14.6% for the purchase of 100Kg AN 33.5%**.** This difference is in the peak selling season of late Winter /Spring when two thirds of annual fertiliser sales are conducted. During the low selling season the difference falls to 8.4%.

AN is more expensive in France than in the UK. During December 1997 (ie during the annual peak of fertiliser sales) 100Kg of AN Import was 4.7% more expensive in France than in the UK.

Differences in price (per 100Kg AN 33.5%):

Numbers to one decimal place

COUNTRIES COMPARED	July '98	Feb. '98	Dec. '97	Most expensive state
	%	%	%	
France / Spain	8.4	14.3	14.6	France

Differences in price (per 100Kg AN Import):

COUNTRIES COMPARED	July '98	Feb. '98	Dec. '97	Most expensive state
	%	%	%	
France / UK	4.2	4.3	4.7	France

[3] Source : EFMA, *Fertiliser industry of the EU*, 1997, p.5

5.3. UREA (G) – (Urea Granules) and UREA (P) Urea Prill

Importance of the product:

Urea contains 46% nitrogen. In Europe it is recommended for heavy soils. 11% of the 9.68 million tonnes nitrogen used in the EU is Urea. Of all nitrogen consumed, France used 2.392 million tonnes and the UK used 1.328 million tonnes in 1997.

Conclusion:

In December 1997 and February 1998, 100Kg Urea granules were 4.9% and 0.9% more expensive in the UK than in France. In July 1998, the same fertiliser was 7.1% more expensive in France than in the UK. This indicates how susceptible the European fertiliser market is to rapid changes.

In July 1998, 100 Kg Urea Prill was 37.1% more expensive in Ireland than in Spain. There are significant price percentage differences for the same fertiliser between states, at the same time of the year. For instance, the fertiliser was 36.8% more expensive in Spain than in France in December 1997.

Overall, 100Kg Urea Prill is far more expensive (up to 37;1%) in Ireland than in the other EU member states studied.

Differences in price (per 100Kg Urea granules):

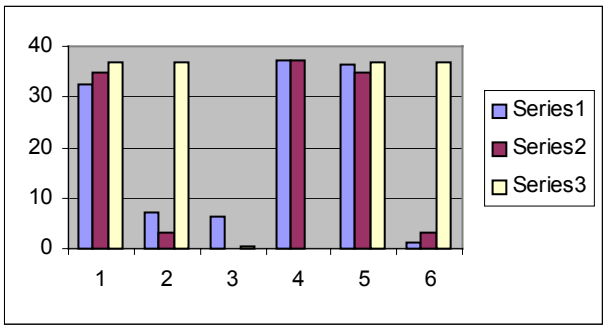
COUNTRIES COMPARED	July '98	Feb. '98	Dec. '97	Most expensive state
	%	%	%	
France / UK	7.1	0.9	4.9	UK (France July 98)

Differences in price (per 100Kg Urea Prill)[4]:

Numbers to one decimal place

COUNTRIES COMPARED	July '98	Feb. '98	Dec. '97	Most expensive state
	%	%	%	
France / Ireland	32.3	35	36.7	Ireland
France / Spain	7.1	3	36.8	France (Spain Dec. '97)
France / UK	6.3	0	0.3	France
Ireland / Spain	37.1	37.1	0	Ireland
Ireland / UK	36.6	34.9	36.9	Ireland
Spain / UK	1	3.3	36.9	UK (Spain Dec. '97)

Chart 2: percentage difference in 100Kg Urea (P) between EU states



Series 1 = July 1998
Series 2 = February 1998
Series 3 = December 1997

COUNTRIES COMPARED
Columns 1 = France / Ireland
Columns 2 = France / Spain
Columns 3 = France / UK
Columns 4 = Ireland / Spain
Columns 5 = Ireland / UK
Columns 6 = Spain / UK

[4] Nitrogen consumption of France, Ireland, Spain and the UK in 1995/96 were 2.392 million tonnes, 415000 tonnes, 1.037 million tonnes and 1.328 million tonnes respectively from the total 9.68 million tonnes nitrogen consumed in the EU that year.

5.4. DAP (DI-AMMONIUM PHOSPHATE)

Importance of the product:

DAP contains both phosphate and nitrate. Out of the 3.56 million tonnes of phosphate used in the EU in 1995/96, 23% was DAP. DAP also represented 3% of the consumption of the 9.68 million tonnes of nitrogen used in the same period in the EU.

Conclusion:

Despite a decreasing price differences over the period studied, there were significant percentage differences in the peak selling season of December 1997. Italy seems to be the country where the purchase of 100Kg of DAP was most expensive (DAP cost at the time 18.5% more in Italy than in Germany, and 21% more in Italy than in Spain). In July 1998, 100Kg DAP was 11% more expensive in Italy than in Spain.

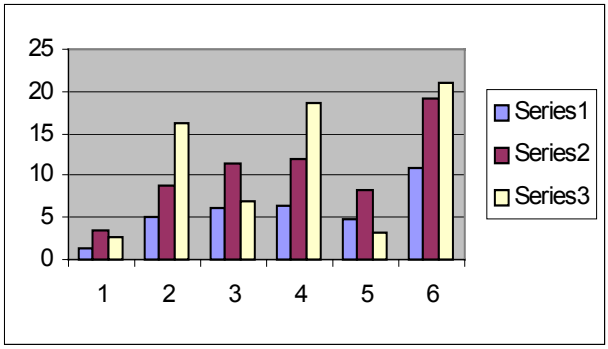
In general, the price difference is approximately 5% between Member States.

Differences in price (per 100Kg DAP):

Numbers to one decimal place

COUNTRIES COMPARED	July '98	Feb. '98	Dec. '97	Most expensive state
	%	%	%	
France / Germany	1.3	3.5	2.7	France
France / Italy	5.1	8.9	16.2	Italy
France / Spain	6.1	11.4	7	France
Germany / Italy	6.4	12	18.5	Italy
Germany / Spain	4.9	8.2	3.1	Germany
Italy / Spain	11	19.2	21	Italy

Chart 3: percentage difference of DAP between EU states



Series 1 = July 1998	**COUNTRIES COMPARED**
Series 2 = February 1998	Columns 1 = France / Germany
Series 3 = December 1997	Columns 2 = France / Italy
	Columns 3 = France / Spain
	Columns 4 = Germany / Italy
	Columns 5 = Germany / Spain
	Columns 6 = Italy / Spain

5.5. 15/15/15 NPK (NITROGEN PHOSPHORUS POTASSIUM)

Importance of the product:

In 1995/96 sales of NPK fertilisers represented 51% of the 4.23 million tonnes of potash fertilisers sold in the EU, 47% of the 3.56 million tonnes of phosphate fertilisers and 22% of the 9.68 million tonnes of nitrogen fertilisers.

Conclusion:

Chart 7 shows that the purchase of 100Kg of 15/15/15 NPK was most expensive in Germany over the period studied. The largest difference was 13.2% in December 1997 between Germany and Spain.

Differences in price (per 100Kg 15/15/15 NPK):

Numbers to one decimal place

COUNTRIES COMPARED	July '98	Feb. '98	Dec. '97	Most expensive state
	%	%	%	
Spain / Germany	4.9	10.7	13.2	Germany

6. input prices for plant protection products

This study examines percentage differences in the price of a number of key plant protection products, widely used by European farmers, in a selection of EU Member States.

6.1. LINURON

Importance of the product:

Registered in every EU Member State[5], Linuron is the active substance used for an essential plant protection product for the eradication of unwanted weeds from crops. It helps ensure maximum growth and yield.

Conclusion:

One kilogram of the herbicide studied cost at the time of the study 196% more in Portugal than in Germany and 30.2% more than in Denmark. It was also 127.3% more expensive in Denmark than Germany.

Differences in price (percentage, per kg of Afalon)[6]:

Countries compared	% difference in price	Most expensive country
Germany / Denmark	**127.3**	Denmark
Germany / Portugal	**196**	Portugal
Denmark / Portugal	**30.2**	Portugal

6.2. PROPAQUIZAFOP

Importance of the product:

Registered in 8 EU states, this is the active substance used for an essential herbicide for the eradication of weeds.

[5] Registration figures are all for 1996.
[6] Percentage differences calculated from VAT excluded figures.

Conclusion:

The herbicide studied cost at the time of the study 68% more in Denmark than in Germany, despite the two countries' proximity.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
Germany / Denmark	**68**	Denmark

6.3. PERMETHRIN

Importance of the product:

Permethrin is the active substance of the insecticide studied, which is registered in every single EU Member States, and is key to obtaining pest free crops.

Conclusion:

The pesticide cost at the time of the study 105% more in Germany than in Portugal.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
Germany / Portugal	**105**	Germany

6.4. CHLORTHALONIL

Importance of the product:

Chlorthalonil is the active substance found in a very important fungicide, which is used to protect crops against bacteria and fungi.

Conclusion:

The fungicide studied cost at the time of the study 43% more in Germany than in the UK.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
Germany / UK	**43**	Germany

6.5. FENPROPIMORPH

Importance of the product:

Registered in every single EU member states, Fenpropimorph is the active substance of an essential fungicide.

Conclusion:

The fungicide studied cost at the time of the study 30.5% more in Germany than in Denmark and 28% more in Germany than in the UK.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
UK / Denmark	**8.6**	UK
Germany / UK	**28**	Germany
Denmark / Germany	**30.5**	Germany

6.6. DELTAMETHRIN

Importance of the product:

Deltamethrin is the active substance of a very widely used insecticide, which is registered in every single EU member state.

Conclusion:

The insecticide studied cost at the time of the study 34% more in Germany than in the UK and 33% more in Germany than Denmark.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
Germany / Denmark	**33**	Germany
Germany / UK	**34**	Germany
Denmark / UK	**1**	Denmark

6.7. PARATHION and ETHYL-PARATHION

IMPORTANCE OF THE PRODUCT:

Parathion and ethyl-Parathion are the active substances of another widely used insecticide, registered in 9 EU countries.

Conclusion:

The insecticide studied cost at the time of the study 117% more in Germany than in Belgium.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
Germany / Belgium	**117**	Germany

6.8. TRALKOXYDIM

Importance of the product:

Tralkoxydim is the active substance of a herbicide which is registered in seven EU Member States, mainly in Southern Europe, and which is considered essential in Spain, Italy and Portugal.

Conclusion:

The herbicide considered cost at the time of the study 128% more in the UK than in Portugal.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
UK / Portugal	**128**	UK

6.9. TRINEXAPAC-ETHYL

Importance of the product:

Trinexapac-ethyl is the active substance of a growth regulator used by farmers to create abundant yields for crops.

Conclusion:

The growth regulator considered cost at the time of the study 39% more in the UK than in Germany.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
UK / Germany	**39**	UK

6.10. ETHOFUSIMATE

Importance of the product:

Ethofusimate is the active substance of a chemical used in 14 EU countries to eradicate weeds (it is not used in Portugal).

Conclusion:

The product considered cost at the time of the study 136% more in the UK than in Germany.

Differences in price (percentage, per litre):

Countries	% difference in price	Most expensive country
UK / Germany	**136**	UK

6.11. COUMATETRALYL

Importance of the product:

Coumatetralyl is the active substance of a popular repellant, registered in 13 EU states (it is not used in Austria or the Netherlands). It rids crops of pests allowing damage reduction and larger and better crop yields.

Conclusion:

The repellant powder considered cost at the time of the study 165% more in Belgium than in Germany.

Differences in price (percentage, per kg):

Countries compared	% difference in price	Most expensive country
Belgium / Germany	**165**	Belgium

6.12. GLYPHOSATE

Importance of the product:

Glyphosate is the active substance of a well-known and very widely-used herbicide. It is registered in every single EU Member State.

Conclusion:

In December 1998, the herbicide considered cost as much as 77 per cent more in Denmark than in the UK, and nearly 70 per cent more in Germany than in the UK.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
Denmark / UK	**77**	Denmark
Germany / UK	**67**	Germany

6.13. SPORTAC ALPHA

Importance of the product:

Carbendazim and Prochloraz are the active substances of an essential fungicide for combating weeds and enhancing crops, which is universally used in the EU states. These active substances are registered in almost every single EU Member State (Carbendazim is not registered in Finland).

Conclusion:

The fungicide considered cost at the time of the study 29% more in Germany than in the UK.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
UK / Germany	**29**	Germany

6.14. FLUROXYPYR

Importance of the product:

Fluroxypyr is the active substance of a herbicide used in 13 EU member states. It is necessary for the eradication of crop weeds in order to produce stronger and more abundant crops.

Conclusion:

The herbicide considered cost at the time of the study 200% more in Germany than in Denmark and 171% more in the UK than in Denmark.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
Denmark / Germany	**200**	Germany
UK / Germany	**11**	Germany
Denmark / UK	**171**	UK

6.15. PENDIMETHALIN

Importance of the product:

Pendimethalin is the active substance of a herbicide registered in all EU countries (except for Denmark and Finland). It is commonly used.

Conclusion:

The herbicide considered cost at the time of the study 66% more in the UK than in Germany.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
UK / Germany	**66**	UK

6.16. MANEB

Importance of the product:

Maneb is the active substance of a fungicide registered in all EU countries (except for Sweden). The fungicide studied is a commonly used fungicide.

Conclusion:

This fungicide cost at the time of the study 26% more in Germany than in Denmark.

Differences in price (percentage, per litre):

Countries compared	% difference in price	Most expensive country
Denmark / Germany	**26**	Germany

7. input prices for agricultural machinery

7.1. KUHN

Based in France, Kuhn manufactures mainly grass harvesting, ploughing, tillage, seeding, fertilisation and spraying machinery. It is, in particular, the world's largest manufacturer of disc mowers. Kuhn also controls 36% of the French implement market.

MOWER CONDITIONER FC 280 P

Rear mounted, it is essential for crass cutting for silage and other operations.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
France / UK	**28.8**	France

GYROTEDDER GF 7001 T

A trailed model (735 cm), with hydraulic folding rotors, it is used to spread cut grass.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
France / UK	**18.1**	UK

POWER HARROWS HRB 252 D

Basic harrows are essential for cultivating the soil (width: 2.5m).

Countries compared	% difference	Most expensive state
France / UK	**18.3**	UK

TWIN DISC FERTILISER SPREADER MDS 81

Spreads fertilisers up to 15m, capacity: 800 litres. They are essential to produce stronger crops with more abundant yields.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
France / UK	**21.3**	UK

VENTA PNEUMATIC SEED DRILLS Ti 401

Essential to all farms for seeding cereals (12.5cm spacing).

Differences in price (percentage):

Countries compared	% difference	Most expensive state
France / UK	**20.5**	UK

7.2. JCB

JCB manufactures 25000 machines per year, 70% of which are exported. JCB is a market leader in self-propelled machinery. Its products range from skid steers, forklifts, wheeled loaders, telescopic handlers. Since 1991, one of their leading machines is the Fastrac, with already more than 5,000 units produced.

FASTRAC 2150 2WD

The JCB fastrac can cover up to 30% more ground than a conventional tractor. It is for very efficient for faster, heavier agricultural work.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Germany / UK	**10.7**	Germany
Netherlands / UK	**12.3**	UK
Netherlands / Germany	**21.7**	Germany

FASTRAC 3155 - 80

Capable of travelling at 80 Kph, the 3155 is particularly useful to farmers who require fast transportation.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Germany / UK	**13.1**	Germany
Spain / UK	**31.4**	UK
Spain / Germany	**40.4**	Germany

FASTRAC 3185 - 80

The Fastrac 3185-80 has a 170 horse power engine which is useful to farmers who work with heavy implements or who need to transport heavy goods quickly (it can also travel at 80 Kph).

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Germany / UK	**13.4**	Germany
Spain / UK	**33.3**	UK
Spain / Germany	**42.2**	Germany

WHEELED LOADER TM 200

A market leader for loaders, the TM 200 combines telescopic lifting ability with excellent maneuverability. The TM 200 has the power traction and climbing ability to quickly get through loading jobs. Lift capacity: 2-2.7 tons.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Spain / UK	**5.1**	Spain
Germany / UK	**26.5**	Germany
Spain / Germany	**22.5**	Germany

TELESCOPIC HANDLER 520-50

The 520-50 is a necessary and effective materials handler. It has a 2-4 ton lift capability.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Germany	**11.7**	Germany
UK / Spain	**11.8**	UK
UK / Netherlands	**7.5**	UK
Germany / Spain	**30.8**	Germany

Germany / Netherlands	**27.6**	Germany
Spain / Netherlands	**4.6**	Netherlands

TELESCOPIC HANDLER 540-70

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Netherlands / Germany	**27.1**	Germany
Netherlands / UK	**22.8**	UK
Netherlands / Spain	**10.5**	Netherlands
Germany / UK	**5.6**	Germany
Germany / Spain	**33.7**	Germany
UK / Spain	**30.8**	UK

SKIDSTEER 150

It has a 500-1050Kg lift capability, which is useful for moving small materials.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Netherlands / Spain	**5.6**	Netherlands
Netherlands / UK	**19.3**	Netherlands
Netherlands / Germany	**23.8**	Germany
Spain / UK	**14.5**	Spain
Spain / Germany	**28.1**	Germany
UK / Germany	**38.5**	Germany

7.3. CLAAS

CLAAS manufactures mainly harvesting machinery ranging from combine harvesters and balers to mowers and forage harvesters. In 1994 225,000 CLAAS machinery units were sold. Of the 25,000 units 75% were exported .

COMBINE HARVESTER, LEXION 460

It has a cutting bar width of 6m.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Germany	**18.3**	Germany
UK / Belgium	**29.7**	UK
Germany / Belgium	**14**	Germany

COMBINE HARVESTER, LEXION 405

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Germany	**14.6**	UK
UK / Belgium	**31.2**	UK
Germany / Belgium	**19.4**	Germany

ROUND BALER, ROLLANT 48 rotocut.

The Rollant has a bale width of 180cm. It is widely used: in Europe, approximately 20% of large round bales are produced by a CLAAS baler.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Belgium	**28.1**	UK

FORAGE HARVESTER, JAGUAR 880

The Jaguar 880 is self-propelled with 4wd.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Belgium	**32.9**	UK

7.4. SAME

SAME primarily manufacture and sell agricultural tractors of up to 190 horse power.

TRACTOR, SOLARIS 35 4WD

This small tractor is ideal for farmers with a small estate or small acreage.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Italy	**40**	UK

TRACTOR, DORADO 60D

Small all round tractor, for smaller estates, its maximum speed is 40Kph.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Italy	**25.3**	UK

TRACTOR, SILVER 100.4 DT 4WD

A 100 horse power tractor suitable for many jobs, for larger farms.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Italy	**24.6**	UK

7.6. CASE

CASE manufactures and retails mainly tractors, combine harvesters and balers.

TRACTOR 2130 55 horse power

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Portugal	**24.7**	UK

TRACTOR 2150 75 horse power

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Portugal	**23.7**	UK

TRACTOR, MAXXUM PRO 5150 132 horse power

The MAXXUM 5150 is a large tractor designed for larger farms.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Portugal	**22.3**	UK

3.7. KVERNELAND

Kverneland are market leaders for tillage equipment, potato equipment, and grass and livestock machinery.

REVERSABLE PLOUGH L95

Mounted, 5 furrow, essential to all cereal growing farmers.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Germany / UK	**13**	UK
Germany / Denmark	**3.6**	Germany
UK / Denmark	**16.1**	UK

BALE WRAPPER UN 7581

This is a tractor mounted with a side loader, necessary for the protection of bale in outdoor storage.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Germany / UK	**12.3**	UK
Germany / Denmark	**35.7**	Denmark
UK / Denmark	**26.7**	Denmark

POTATO HARVESTER UN 2200

This is a two row manned harvester.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Germany / UK	**19.9**	UK
Germany / Denmark	**11.3**	Denmark
UK / Denmark	**30**	Denmark

3.8. New Holland

New Holland is a market leader for tractors, combine harvesters, forage harvesters and balers.

TRACTOR 7840

This is a multi-purpose tractor for the average-sized farm.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Belgium / UK	**11.2**	Belgium
UK / Portugal	**5.8**	UK
Belgium / Portugal	**16.4**	Belgium

TRACTOR TS 90

A multi-purpose tractor for medium to large farms.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
Portugal / UK	**27.9**	UK
Belgium / Portugal	**32.7**	Belgium
Belgium / UK	**6.8**	Belgium

3.1. JOHN DEERE

John Deere is a well-known market leader for the manufacture and retail of tractors and combine harvesters and balers.

TRACTOR 6810 125 horse power 4WD

This six-cylinder tractor is designed for heavy work on medium to large farms. The 6810 tractor is tailored for farms of acreage similar to what is commonly found in the UK.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / France	**31.6**	UK
UK / Spain	**31.5**	UK
UK / Germany	**34.2**	UK
UK / Italy	**25.6**	UK
France / Spain	**0**	=
France / Germany	**3.9**	France
France / Italy	**8**	Italy
Spain / Germany	**4**	Spain
Spain / Italy	**8**	Italy
Germany / Italy	**11.6**	Italy

MOWER CONDITIONER 1350

Essential for hay and silage cutting, the 1350 has a cutting width of 2.5m.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Spain	**39**	UK

COMBINE HARVESTER 1170 170 horse power

Combine harvester with a 16-foot cutting bar, designed for large estates.

Differences in price (percentage):

Countries compared	% difference	Most expensive state
UK / Spain	**42.8**	UK

LARGE SQUARE BALER 680

Produces bales 100-250cm in width.

Countries compared	% difference	Most expensive state
UK / Spain	**43.4**	UK

SEED DRILL 750A

With a width of 3m, the drill is popular in countries with a large cereal industry.

Countries compared	% difference	Most expensive state
UK / Spain	**42.7**	UK

8. methodology

This study is more an initial investigation into an issue which requires further research, backed by greater financial means. It does not pretend, however, to be definitive and wholly scientific.

Timeframe

The three studies were conducted from April to August 1998.

Sources

In general, because of the commercial nature of the information sought, it was not always possible to obtain statistics on every aspect of the inquiry. This explains the lack of uniformity in the coverage of the study.

Currencies

All national currencies were converted into ECU's using the current exchange rate at the relevant time (eg December 1997 fertiliser prices were converted into ECU's using the December 1997 exchange rate).

More on each study

Specific information relating to the three studies is summarised below.

1. FERTILISERS

Sources:

Information on the price of fertilisers was particularly difficult to obtain either from national or independent fertiliser organisations. Information is available from the European statistical office Eurostat, but is only sold at a prohibitive cost, because of its commercial sensitivity.

CEJA therefore used other sources of information. The London based consultants, FMB Consultants Ltd[7], and their specialist publication, the Fertiliser Manufacturers Bulletin was the only European organisation willing to share information on the subject. FMB sent every two weeks information on the basic prices of fertilisers per 100Kg in eight European countries.

The European Fertiliser Manufacturers Association was also particularly helpful for global figures.

Timeframe:

Of all annual agricultural fertiliser sales, only 33% are conducted during the summer. Because of reduced sales, prices remain relatively constant and tend to fluctuate less dramatically between states.

Also compared were the prices in the peak selling season. The resulting percentage price differences of fertiliser prices from December 1997, February 1998 and July 1998 are expressed in both text and chart form.

Taking taxation into account:

Taxation of agricultural nutrients used to manufacture fertilisers is applied in two states, Belgium and the Netherlands, thereby affecting the price of the final fertiliser products. Taxation of agricultural nutrients (before fertiliser manufacture) must therefore be accounted for in the price differences for Belgium and The Netherlands.

BELGIUM: farmers who produce more than 1,500Kg phosphate manure must pay a basic levy. There are four rates, including amount processed and exported:

- 1,500-5,000Kg phosphate and 3,000-10,000Kg nitrogen: 1.25 BEF/Kg levy
- 5,000-10,000Kg phosphate and 10,000-20,000Kg nitrogen: 1.75 BEF/Kg
- 10,000-15,000Kg phosphate and 20,000-30,000Kg nitrogen: 2.25 BEF/Kg
- More than 15,000Kg phosphate and 30,000Kg nitrogen: 3 BEF/Kg

(Source: EFMA)

NETHERLANDS: the levy for nitrogen surplus is Dfl 1.5/kg/ha. The levy free surplus per hectare will be lowered as follows:

- phosphate 40Kg/ha (1998) to 20Kg/ha (2008);

[7] FMB Consultants Ltd
FMB House, 6 Windmill Road, Hampton Hill, Middlesex TW12 1RH
Tel.: +44 181 979 7866 - Fax: +4 181 979 4573

- nitrogen for grassland 300Kg/ha (1998) to 250Kg/ha (2002), 180Kg/ha (2008)
- nitrogen for arable land 175Kg/ha (1998) to 125Kg/ha (2002), 100Kg/ha (2008)

(Source: EFMA)

Taking delivery costs into account:

Fertiliser prices sometimes include the transportation of the product (to the dealer and / or to the farmer). For example, for CAN 27%, the price per 100Kg in Belgium included delivery to the user in bulk, whereas the same fertiliser was delivered to the user in Ireland bagged.
The price of the fertiliser in Ireland would therefore be marginally more expensive to deliver due to the package being bagged and not bulk delivered. However, such marginal differences in delivery cost do not explain price percentage differences of up to 38% for the same product between two states.

2. PLANT PROTECTION PRODUCTS

Sources:

Price information was difficult to obtain from national and independent machinery organisations, because of competition concerns in a very lucrative and sensitive sector.

Nevertheless, information was received from five different countries: the UK, Germany, Denmark, Portugal, and Belgium. The statistics were shared by organisations representing the plant protection industry, independent retailers, and a number of international plant protection organisations.

Taking taxation into account:

Apart from the usual import / export taxation used in international trade, all prices were calculated exclusive of Value Added Tax.

3. AGRICULTURAL MACHINERY

Again, information was found difficult to obtain. However, information on prices was received for eleven European countries, from independent retailers of machinery products and from eight international machinery organisations, which proved particularly helpful.

The eight companies which shared information were Kuhn, JCB, CLAAS, SAME, New Holland, CASE, John Deere and Kverneland. The

eleven countries were the UK, Ireland, France, Germany, Spain, Italy, Denmark, Portugal, Belgium and the Netherlands.

Taking taxation and delivery costs into account:

Taxes on the importation of agricultural machinery can be significant and partly explains the large differences in prices found between Member States. The companies contacted could not give information regarding importation or exportation taxes.

All prices were calculated inclusive of Value Added Tax. When heavy agricultural machinery is exported, significant transportation costs partly explain differences in the price of the machines in countries more or less distant from the producer.

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