Annex

Annex A: Processing Map

Questionnaire send to the companies:

Questionnaire

Company Name	…………………………………………………………..
Contact Person	…………………………………………………………..
Address	…………………………………………………………..
	…………………………………………………………..
	…………………………………………………………..

REMARKS ABOUT THE QUESTIONNAIRE

This questionnaire is designed to collect data for establishing a map of European phosphorus processing capacity in the P-REX project (www-p-rex.eu). The data will be publicly available and help recyclers of phosphorus find suitable partners for transforming their materials to fertilizers and for marketing of those. The participating fertilizer companies will, if interested, have the occasion to come in contact with future providers of alternative feed stocks.

Should you feel some data cannot be given, since it is confidential or not available, feel free to leave the space blank. Even if you cannot give all data your contribution is valuable for us. Usually we fill out the form together with the company; in this way upcoming questions can be answered the most appropriate answer chosen together.

Site (if your company has several sites, one form per site is needed)

………………………………………………………..

Country ………………………………………………………..

Which type of P2O5-containg (rock, ashes,…) raw materials do you use and how much of each?

Raw material	**Involved in what type of processing step? (chemical or granulation)**	**P2O5-Content (%)**	**Volume (t/year)**	**Quality requirements/ remarks?**	**Price Range (€/t)**

If info on the volume of particular raw materials is not possible, you can state the total volume of P (t/year) ………………of the site and the corresponding price range (€/t)…………………….

Please give an overview of your product types.

Product Type	**Fraction of total P2O5 (%)**
P	
NP	
PK	
NPK	
Other :…………….	
Total	100

Do you already integrate P-recycling products?

- **Yes**

Type	Quality requirements/remarks?	Volume (t/year)

- Could you use

	Mass %				Contaminants (mg/kg product)							Your capacity to process (t/year)	Value for your company (€/t)
	N	P	K	Mg	Pb	Cd	Cr	Cu	Ni	Zn	Hg		
Recycled struvite (from wastewater stream)	5	28	0	10	13	1.76	12	93	10	403	0.146		
Ash Preparation	0	7.6	0	0	1.5	0.03	80	40	60	120	0.01		

- **No**
    - Do not have the possibilities
    - Not interested

NPK-producers performing chemical processing using acid. BAT document (EC), with information on site openings and shutdowns from public sources and branch associations (European Commission, 2007). (Public sources, 2014).

Country	Company	City	kt NPK
Austria	Borealis Agrolinz Melamine GmbH	Linz	400
Austria	TIMAC Agro	Pischelsdorf	150
Belgium	EuroChem Antwerpen (ex BASF)	Antwerp	1200
Belgium	ICL	Grobbendonk	
Belgium	Prayon Group	Engis	
Belgium	Rosier S.A.	Moustier	300
Belgium	Timac Agro (Groupe Roullier)	Charleroi-Marchienn	
Belgium	TRIFERTO	Ghent	
Bulgaria	AGROPOLYCHIM JSC	Devina	
Croatia	Adriatica Dunav (Kappa fertilizers)	Vukovar	
Croatia	PETROKEMIJA	Kutina	
Croatia	PETROKEMIJA	Kutina	
Czech Republic	Lovochemie, a.s.	Lovosice	160
Finland	YARA ex.KEMIRA GrowHow OY	Siilnjaervi	500
Finland	YARA ex.KEMIRA GrowHow OY	Uusikaupunki	525
Finland	YARA ex.KEMIRA GrowHow OY	Uusikaupunki	425
France	CEDEST	Noyon	
France	Fertemis is Eliard-SPCP	Mont Notre Dame	150
France	FERTINAGRO	Misson-Habas	
France	France Champagne Appro - Fertilisants	Vireux-Molhain	
France	Groupe Roullier (CFPR)	SECMA, Tonnay-Charente	200
France	Groupe Roullier (CFPR)	RENO, Le Treport	
France	Groupe Roullier (CFPR)	TIMAC, Saint-Malo	250
France	Groupe Roullier (CFPR)	RENO, Nantes	
France	Groupe Roullier (CFPR)	RENO, Bayonne Tarnos	
France	Groupe Roullier (CFPR)	RAE, Plan d Orgon	
France	Longueil	Ste Marie	
France	Plantin SARL	Courthezon	
France	ROULLIER GROUPE (ex.SUD FERTILISANT)	Sete	200
France	SECO Fertilisants S.A.	Ribecourt	300
France	Société des engrais de Berry-au-Bac	Berry au Bac	
France	YARA FRANCE	Montoir de Bretagne	500
Germany	Compo GmbH & Co. KG	Krefeld	250
Germany	ICL Fertilizers Deutschland GmbH	Ludwigshafen	
Greece	ELFE	Nea Karvali, Kavala	
Greece	ELFE	Nea Karvali, Kavala	
Italy	Baslini S.p.A.	Treviglio	
Italy	Eurozolfi s.r.l.	Catania	
Italy	IND.CHIMICHE PUCCIONI	Vasto-Chieti	
Italy	IND.CHIMICHE PUCCIONI	Vasto-Chieti	
Italy	Kappa S.p.A.	Cologna Veneta	
Italy	Timac Italia S.p.A.	Barletta (BA)	

Country	Company	City	kt NPK
Italy	Valagro S.p.A.	Atessa	
Italy	YARA ITALY SPA	Ravenna	480
Lithuania	Arvi Fertis	Marijampole	160
Netherlands	ICL Fertilizers Europe C.V.	Amsterdam	200
Netherlands	Rosier Nederland B.V.	Sas Van Gent	260
Netherlands	Rosier Nederland B.V.	Sas Van Gent	200
Netherlands	Yara Vlaardingen B.V.	Vlaardingen	
Poland	FOSFAN SA	Szcecin	
Poland	Gdanskie Zakl. Nawozow Fosforowych Fosf.	Gdansk	
Poland	Gdanskie Zakl. Nawozow Fosforowych Fosf.	Gdansk	
Poland	Gdanskie Zakl. Nawozow Fosforowych Fosf.	Gdansk	150
Poland	Grupa Azoty Zch Police S.A.	Police	580
Poland	Grupa Azoty Zch Police S.A.	Police	550
Poland	LUVENA SA	Lubon	
Poland	ZAKLADY CHEMICZNE SIARKOPOL TARN-OBRZEG	Tarnobrzeg	
Portugal	ADP FERTLIZANTES SA (FERTIBERIA) EX-CUF	Setubal-Lisbon	250
Portugal	ADP FERTLIZANTES SA (FERTIBERIA) EX-CUF	Setubal-Lisbon	200
Romania	AZOMURES S.A.	Targu Mures	
Romania	SC DONAU CHEM SRL	Turnu Magurele	
Slovakia	Duslo	Sala Nad Vahom	290
Spain	FERTIBERIA S.A.	Aviles	200
Spain	FERTIBERIA S.A.	Huelva	200
Spain	Fertinagro (Agrimartin)	Teruel	200
Spain	Fertinagro (Agrimartin)	Sarrion	
Spain	FERTISAC	Granada	
Spain	MIRAT S.A.	Salamanca	150
Spain	ROULLIER GROUPE - TIMAC AGRO	Lodosa	270
Spain	SADER	Asturias	200
UK	GrowHow UK Ltd	Ince Marshes	
UK	GrowHow UK Ltd	Ince Marshes	
UK	GrowHow UK Ltd	Ince Marshes	
UK	GrowHow UK Ltd	Billingham	630
UK	Sirius Minerals	Teesside	

Companies producing TSP SSP in Europe (European Commission, 2007), (Public sources, 2014).

Country	**Company**	**P_2O_5 in kt capacity**
Austria	TIMAC Agro	
Belgium	Rosier S.A.	60
Belgium	Prayon Group	60
Belgium	Prayon Group	
Bulgaria	AGROPOLYCHIM JSC	
Germany	ICL Fertilizers Deutschland GmbH	54
Spain	MIRAT S.A.	9
France	ROULLIER GROUPE (ex.SUD FERTILISANT)	101
France	Groupe Roullier (CFPR)	
Italy	IND.CHIMICHE PUCCIONI	15
Italy	Timac Italia S.p.A.	
Netherlands	ICL Fertilizers Europe C.V.	110
Poland	LUVENA SA	100
Poland	FOSFAN SA	

Annex B: Bulgaria

Import of phosphate fertilizers from individual countries (Bulgarian Statistical Institute, 2011)

	One – component fertilizers (P)	NPK fertilizers	NP fertilizers			PK fertilizers	Total amount (t/a)	Share (%)
			DAP	MAP	other NP			
Greece	100	19 466	-	52	47 600	-	67 218	28.00
Morocco	-	-	35 671	-	-	-	35 671	14.86
Tunisia	18 046	-	-	-	5 087	-	23 134	9.64
Russia	-	-	-	21 575	-	-	21 575	8.99
Austria	1 678	19 348	-	-	46	416	21 487	8.95
Romania	2 155	6 224	1 393	-	3 923	-	13 694	5.70
Ukraine	-	8 929	-	102	940	-	9 971	4.15
Italy	138	490	-	-	8 785	298	9 711	4.05
Croatia	-	2 464	-	287	4 765	-	7 516	3.13
Uzbekistan	-	-	-	-	7 035	-	7 035	2.93
Belgium	-	5 004	43	-	32	21	5 101	2.12
Others	-	11 040	2 216	92	3 536	1 068	17 951	7.48
Total amount	22 117	72 965	39 323	22 108	81 749	1 802	240 064	

Export of phosphate fertilizers from individual countries (Bulgarian Statistical Institute, 2011)

	One - component-fertilizers (P)	NPK fertilizers	NP fertilizers			PK fertilizers	Total amount ()	Share (%)
			DAP	MAP	other NP			
Iran	157 317	0	0	0	0	0	157 317	43.5
Romania	3 860	1 454	26 831	2 810	41 313	0	76 267	21.1
USA	0	0	0	27 498	0	0	27 498	7.6
Brazil	0	0	0	0	27 491	0	27 491	7.6
France	20 003	0	0	0	0	0	20 003	5.5
Mexico	0	0	0	0	16 497	0	16 497	4.6
Italy	2 681	0	5 159	3 603	0	0	11 442	3.2
Croatia	2 016	0	0	6 329	0	0	8 344	2.3
Hungary	0	0	1 209	3 579	506	0	5 294	1.5
Serbia	0	450	1 458	1 920	175	0	4 002	1.1
Greece	194	952	1 015	299	1 419	20	3 898	1.1
Austria	1 025	0	1 018	1 525	0	0	3 569	1.0
Others	0	263	0	1	23	0	288	0.1
Total amount	187 095	3 118	36 690	47 563	87 423	20	361 910	100.0

Fertilizer producers

Company name	
	NEOCHIM PLC
Role on the market	• Importer • Fertilizer producer • Wholesaler
Brief description	• Material processing • Fertilizer production (ammonia,ammonium nitrate, NPK) • Fertilizer selling
Contact	http://www.neochim.bg/english/
Contact person (e-mail)	Managing director Grancharov , Phone: 0391 60580
Important Bulgarian fertilizer producer. Company is located near Dimitrovgrad and produces different types of nitrogenous, potassium and phosphorus fertilizers. Production of ammonium nitrate is the most significant (339 000 t/a in 2010). Important item is also ammonia production (158 000 t/a in 2010). Production of phosphate fertilizers is less important in comparison with nitrogenous types. Neochim is producing NPK fertilizers which are obtained by dry mixing. Company offers and sells its products to the end-users or retailers.	
Products	

Raw material	Amount per year (t/a)	Total P_2O_5 (t/a)	-
-	-	-	
Product name (P fertilizer)	Amount per year (t/a)	Total P_2O_5 (t/a)	
Total	1000 -	-	
Recycled products	Not processed or used		

Company name	
AGROPOLYCHIM	Agropolychim JSC
Role on the market	• Importer • Fertilizer producer • Wholesaler
Brief description	• Material processing • Fertilizer production (ammonia, ammonium nitrate, NPK) • Fertilizer selling
Contact	http://www.agropolychim.bg/en/contacts/
Contact person (email, phone number)	Phone: +359 5199 7526; Fax: +359 5199 7594 Email: office@agropolychim.bg
Agropolychim is located near Devnia and deals with fertilizers production and distribution in Bulgaria. Production of ammonia was 159 000 tons per year for 2010, Stabilized ammonium nitrate volumes were 310 000 tons per year in 2010 and non-stabilized ammonium nitrate 68 000 tons per year in 2010. Production of phosphate fertilizers is less significant. Data were obtained for the year 2010. Agropolychim activities also include selling of the products to the retailers and end – users.	
Recycled products	Not processed or used

Total production of Phosphorus fertilizers was 222 000 t/a in 2010 or 102 000 tons P_2O_5 (100%) in 2010 (Neochim PLC plus AgropolychimJSC).

Wholesalers

Company name	Agricola
Role on the market	• Wholesaler • Producer of blended fertilizers
Brief description	Started in 2004 Sale mineral fertilizers (Amonium Nitrate , Stabilized Amonium Nitrate , Urea , Triple Superphosphate ,Monoamonium Phosphate , NPK 15:15:15 , KCL , Potassium Sulphate) Mixing different combinations of NPK
Contact	http://agricolabg.com/?p=7&l=1
Contact person	Pleven Phone: (64) 800 624, (64) 801 714, Varna Phone: (52) 961 744/6 Email: info@agricolabg.com
Recycled products	The company is not interested in recycled products

Company name	Kompaktpak Ltd
Role on the market	• Wholesaler • Producer of blended fertilizers
Brief description	Started in 2000 Sale mineral fertilizers (ammonium nitrate, ammonium sulphate, liquid nitrogen fertilizers, urea, triple superphosphate, superphosphate) Agricultural chemicals (herbicides, pesticides)
Contact	http://www.kompaktpak.com/index.php?p=contacts
Contact person	Lovech Phone:. 068 600745, 0897 942924 Email: kompaktpak@mail.bg
Recycled products	The company is not interested in recycled products

Company name	Bulagro
Role on the market	• Wholesaler • Producer of blend fertilizers • Agriculture products and chemistry
Brief description	Bulagro AD is a part of the structure of Bulagro Group Holding EAD and has 20 years presence at the agricultural market in Bulgaria. Main product: Crop protection products, Fertilizers (ammonium nitrate, stabilized ammonium nitrate, triple super-phosphate, potassium sulphate, potassium chloride) Hybrid seeds Agricultural insurance and consultancy.
Contact	http://bulagro.bg/agriculture/static.php?id=1&language=en_EN
Contact person	Ing.Maria Slavova, Sales manager Phone: 042 600 171 Stara Zagora
Recycled products	The company is not interested in recycled products

Company name	A-Agro Ltd
Role on the market	• Wholesaler • Producer of blend fertilizers • Agriculture products and chemistry
Brief description	Mineral fertilizers production (ammonium nitrate, diammonium sulphate, urea, triple superphosphate, monoammonium phosphate, NPK 15:15:15, NP, SAN, UAN)
Contact	http://aagro.eu/
Contact person	Valchi Dol Phone: 0887 697749 Email : aagro@abv.bg
Recycled products	The company is not interested in recycled products

Annex C: Data tables Czech Republic

Import of raw materials containing P from individual countries (Czech Statistical Institute, 2012)

	H_3PO_4 (t/a)	P_2O_5 (t/a)	Calcium phosphate (t/a)	P (t/a)	Natural calcium phosphates (t/a)	total amount (t/a)	Share (%)
Lithuania	0	0	7 156	0	0	7 156	31.5
Finland	0	0	4 830	0	0	4 830	21.2
Netherlands	3 017	0	601	0	0	3 619	15.9
Belgium	1 874	0	1 001	0	0	2 875	12.6
Russia	0	0	2 584	0	0	2 584	11.4
Poland	672	0	5	0	0	677	3.0
Germany	116	0	125	0	20.0	262	1.2
USA	46	0	47	0	0	93	0.4
Italy	2	0	24	2.80	0.03	29	0.1
Great Britain	17	0	0	0	0.06	17	0.1
China	0	0	14	0	1.0	15	0.1
Kazakhstan*	0	0	0	?	0	?	?
Other countries	426	0	150	0	0.01	576	2.5
Total amount	**6 171**	**0**	**16 538**	**3**	**21.09**	**22 733**	**-**

*Czech statistical institute (CSI) does not provide data about annual amount because of one dominant importer. P in the form of white phosphorus is imported from Kazakhstan by FOSFA (the only importer in the Czech Republic from Kazakhstan), but the data are sensitive for the company).

Annual import of phosphorus material to the Czech Republic (Czech Statistical Institute, 2012)

Phosphorus source	Volume (t/a)	(%)	Relative volume (kg/ inhabitant/a)*	Relative volume (kg/ ha of agricultural land/a)**
H_3PO_4	6 171	27.15	0.59	1.76
Calcium phosphate	16 538	72.75	1.57	4.71
Phosphorus P	3	0.01	0	0
Natural calcium phosphates	21	0.09	0	0
Total annual volume	**22 733**		2.16	6.48

*Czech population: 10 516 000 inhabitants

**Agricultural land: 3 507 646 ha

Import of phosphate fertilizers from individual countries (Czech Statistical Institute, 2012)

	One - component fertilizers (P) (t/a)	NPK fertilizers (t/a)	NP fertilizers ()			PK fertilizers (t/a)	Total amount (t/a)	Share (%)
			DAP	MAP	other NP			
Poland	14 994	19 126	2 247	6 089	4 088	119	**46 663**	**31**
Austria	1 704	9 360	0	0	12 927	395	**24 387**	**16**
Russia	303	3 061	0	20 559	0	0	**23 923**	**16**
Lithuania	1 176	8 879	2 837	3 122	2 544	0	**18 558**	**12**
Slovakia	127	7 286	0	0	1 719	0	**9 132**	**6**
Others	4 772	13 629	1 395	2 125	4 284	1 394	**27 599**	**18**
Total amount	23 076	61 341	6 479	31 895	25 563	1 908	**150 262**	100

Export of raw materials containing P to individual countries (Czech Statistical Institute, 2012)

	H_3PO_4 (t/a)	P_2O_5 (t/a)	Calcium phosphates (t/a)	Phospho-rus(t/a)	Natural calcium phosphates (t/a)	Overall (t/a)	Share (%)
Germany	22 308	0.002	-	0.002	-	22 308	65.8
Austria	3 369	-	2.4	-	-	3 371	9.9
Poland	1 547	-	3.6	-	-	1 550	4.6
Hungary	1 248	0.008	-	-	-	1 248	3.7
Slovenia	1 172	0.009	66.5	-	0.100	1 238	3.7
Others*	4 171	0.007	1.0	0.002	0.025	4 172	12.3
Total amount	33 817	0.026	73.4	0.004	0.125	33 890	-

Annual export of phosphorus material from the Czech Republic (Czech Statistical Institute, 2012)

Phosphorus source	Volume (t/a)	(%)	Relative volume (kg/ inhabi-tant/a)*	Relative volume (kg/ ha of agricultural land/a)**
H_3PO_4	33 817	99.8	3	9.64
P_2O_5	0.26	0	0	0
Calcium phosphate	73,421	0.2	0	0.02
Phosphorus P	0.004	0	0	0
Natural calcium phos-phates	0.125	0	0	0
Total annual volume	**33 890.6**		3	9.66

*Czech population: 10 516 000 inhabitants

**Agricultural land: 3 507 646 ha

Export of raw materials containing P from individual countries

	One - component P fertilizers (t/a)	NPK (t/a)	MAP (t/a)	NP (t/a)	PK (t/a)	Total volume t/a)	Share (%)
Germany	51.6	6361	-	847.8	-	7 260	56.9
Slovenia	153.5	4013	64.8	55.3	1.0	4 287	33.6
Austria	-	687	-	223.2	-	910	7.1
Poland	54.2	43.6	0.8	5.3	1.2	105	0.8
Hungary	-	85.7	2.0	-	-	87.7	0.7
Other countries	156	98.2	-	-	-	114	0.9
Total amount	274.9	11288	67.6	1131.6	2.2	12 765	-

Annex D: Czech Republic

Fertilizer producer

The price of the raw phosphorus material was declared to be top secret by all contacted companies.

<table>
<tr><td colspan="4">Company name</td></tr>
<tr><td>LOVOCHEMIE a.s. LOVOSICE</td><td colspan="3">LOVOCHEMIE</td></tr>
<tr><td>Role on the market</td><td colspan="3">Fertilizer producer</td></tr>
<tr><td>Contact Person</td><td colspan="3">Petr Ulbricht (Petr.Ulbricht@lovochemie.cz)</td></tr>
<tr><td>Contact (web)</td><td colspan="3">http://www.lovochemie.cz/</td></tr>
<tr><td colspan="4">Lovochemie, a.s. is the largest producer of fertilizers in the Czech Republic, and for over 100 years has contributed significantly to the development of Czech agriculture with its manufacturing program. At present, Lovochemie, a.s. has been focusing on the production and sale of solid/liquid nitrogenous and compound fertilizers. A significant part of the production is exported to the competitive western markets. The company processed apatite from Russia to form multi-component (NPK and NP) fertilizers until the end of 2012. At this time the supply of raw material was stopped. Lovochemie was the dominant P fertilizer producer in the Czech Republic. They are trying to find new raw phosphorus material with adequate quality. The production of P fertilizers from intermediate products – MAP and DAP (not from apatite) is expected in the future.
Recycled phosphorus product: The production of recycled material has to be more than 5000 t (preferably 10 000 t/a) in order that this business is interesting for Lovochemie. They require stable quality of material (the content of heavy metals is limited by regulations). The estimated struvite production from the ten largest WWTP in the Czech Republic is still quite low and not interesting for them. It would be better to focus on richer sources of phosphorus – i.e. manure, biogas plants, and industrial wastewater. For Lovochemie, struvite is more interesting than hydroxylapatite. Ash with phosphorus content about 17% seems to be a good resource too.</td></tr>
<tr><td colspan="4">Products until 2012 (has not been producing since the end of 2012)</td></tr>
<tr><td>Raw material</td><td>Amount per year (ton/a)</td><td>Total P_2O_5 (ton/y)</td><td>Origin</td></tr>
<tr><td>Apatite</td><td>-</td><td>ca. 9000</td><td>Russia</td></tr>
<tr><td>Recycled products</td><td colspan="3">Not processed or used</td></tr>
</table>

Company name		
	Fosfa, a.s.	
Role on the market	Raw material importer, Fertilizer producer	
Brief description	material processing, fertilizer production	
web	http://web.fosfa.cz/	
Contact person	Ing. Hynek Charvat (charvat@fosfa.cz)	

FOSFA is an important fertilizer producer and raw material importer in the Czech market. It is the only importer of phosphorus from Kazakhstan (phosphorus is imported in the form of white phosphorus). The company was willing to provide data about the total annual fertilizer production and the total amount of phosphorus (in the form of P_2O_5). The annual amount of individual fertilizers was evaluated as sensitive for the company. The same problem we faced with the amount of white phosphorus. Because FOSFA is the only importer, those data are secret.

Recycled phosphorus products: currently, FOSFA does not use recycled phosphorus products for fertilizer production. They are interested in this topic and are willing to cooperate further. Their attention is focused not only on the recycled product purchase but also on recycling itself.

Products		
Raw material	Amount per year (t/a)	Total P_2O_5 (t/a)
Total	483	23
Recycled products	Not processed or used	

Company name		
	Ecolab (SILVAMIX)	
Role on the market	complex fertilizers producer (since 1993)	
Brief description	Slow-releasing fertilizer production	
web	http://www.silvamix.com/	
Contact person	Vlastimil Martinů (martinu@ecolab.cz)	
ECOLAB is a small producer of slow – releasing fertilizers for specific use. The company is using only conventional phosphorus materials. Recycled products (struvite) are interesting for them, but they see the problem in the high price. The composition of struvite is suitable for their purposes. The major markets for ECOLAB ZNOJMO are the EU countries, New Zealand, United Arab Emirates, India and Bangladesh. Customers are primarily forest and fruit-growing companies. The total annual volume of the SRF production is about 600 tons.		
Products		
Raw material	Amount per year (t/a)	Total P_2O_5 (t/a)
Total	32.5	11.5
Product	Amount per year (t/a)	Total P_2O_5 (t/a)
Total	87	14.1
Recycled products	Not processed or used, does not have possibility	
Share of agriculture products:	Agriculture 99 % Hobby 1 %	
Further information	50 % of production is exported	

Wholesaler

Company name	
	YaraAgri, Czech Republic – data only from web
Role on the market	Fertilizer importer, wholesaler
Web	http://www.yaraagri.cz/
Contact person	Tomáš Mayer (Tomas.Mayer@yara.com)
YARA Agri Czech Republic Ltd. is a subsidiary of global manufacturer of fertilizers Yara International ASA (headquartered in Oslo, Norway). Yara Agri Czech Republic represents its parent company on the Czech market, mainly in the sale and distribution of fertilizers. They did not provide data and share information about their sales for P-REX purposes. All information therefore was obtained from the internet. No fertilizers are produced within the territory of the Czech Republic. All products are imported and sold.	
Recycled products	Not processed or used

Company name		
	AGRO CS	
Role on the market	Fertilizer importer (Poland, etc.), wholesaler, retailer, cooperation with the farmers, blend fertilizers NPK production	
Brief description	Fertilizers delivery, packing, storage, complex service, fertilizers mixing and land application, fertilizer application consultancy, laboratory services	
Web	http://www.agrocs.cz/	
Contact person	Ing. Martina Němcová (nemcova@agrocs.cz)	
Products		
	Amount per year (t/a)	Phosphorus form
Total P amount	2400	
The Agro Services Division provides farmers and distributors in the Czech Republic with fertilizers and comprehensive services. Their major activities are connected with application of chemical fertilizers by using the FARGO spreader and customized mixing of fertilizers.		
Recycled products	Not processed or used, recycled product is not interesting for them	

Company name		
ZZN PELHŘIMOV		
Role on the market	Wholesaler, retailer	
Brief description	Mineral fertilizers sale (22 % of the annual turnover), mixed mineral fertilizers production, packing, storage	
Web	http://www.zznpe.cz/	
Contact person	Ing. Pavel Šereda (pavel.sereda@zznpe.cz)	
Products		
	Amount per year (t/a)	Total P_2O_5 (t/a)
Total P amount	6100	1444
The abbreviation ZZN means agriculture supply and purchase. Currently there are 12 companies with sign ZZN in the Czech Republic. These are covered by the association of the Czech-Moravian agricultural supply and purchase. ZZN Pelhřimov is the member of AGROFERT holding. In the area of fertilizers, company deals with fertilizers purchase and sale, preparation of blend fertilizers (according to customer requirements), transport and application of the fertilizers and fertilizers storage. ZZN Pelhřimov has many fertilizer storages in the area of South Bohemia.		
Recycled products	Is not interesting for the company	
Share of products for agriculture:	100 %	

Company name		
ZZN Polabí, a.s.	ZZN Polabí	
Role on the market	wholesaler, retailer, producer of blend fertilizers, cooperation with farmers, agriculture production	
Brief description	purchase and storage of plants, sale of seeds, agrochemicals, fuels, farm supplies, bagged feed mixes, service and sale of agricultural machinery	
Web	http://www.zznpolabi.cz/	
Contact person	Ing. Jiří Sochor (jiri.sochor@zznpolabi.cz)	
Products		
	Amount per year (t/a)	Total P_2O_5 (t/a)
Total P amount	3800	1837
Recycled products	Recycled products are of interest for the company. They noted that application of struvite could be a problem because of the heavy metals content (they sell fertilizers to the green groceries).	
The company is member of AGROFERT holding.		
Share of products for agriculture:	Agriculture: >90 % Hobby: < 10 %	

Company name		
	Agropodnik Domažlice	
Role on the market	wholesaler, retailer, cooperation with farmers	
Brief description	supply of solid and liquid fertilizers, storage of the fertilizers, application on the land, complete service for farmers	
web	http://www.agropodnik.eu/agpdomazlice/	
Contact person	Ing. Josef Hoffmann (hoffmann@agropodnik.cz)	
Products		
	Amount per year (t/a)	Total P_2O_5 (t/a)
Total P amount	815	345
Recycled products	Do not use recycled products	
Member of AGROFERT holding.		
Share of products for agriculture:	100 %	

Company name				
	Cerea			
Role on the market	Wholesaler, retailer			
Brief description	Fertilizer sale, packing and storage			
web	http://www.cerea.cz/			
Contact person	Ing. Miroslav Motl (miroslav.motl@cerea.cz)			
Member of Agrofert holding.				
Products				
	Amount per year (t/a)	P_2O_5 content (%)	Total P_2O_5 (t/a)	Price range (E/tt
Total P amount	ca 7000		-	
Recycled products	Do not use recycled products			

Company name		
	NAVOS	
Role on the market	wholesaler, retailer, cooperation with the farmers, agriculture production	
Brief description	Fertilizer sale, packing and storage	
web	http://www.navos-km.cz/	
Contact person	Ing. Jiří Šustr (jiri.sustr@navos-km.cz)	
Member of AGROFERT holding.		
Products		
	Amount per year (t/a)	Total P_2O_5 (t/a)
Total P amount	8600	3467
Recycled products	Do not use recycled products	
Share of products for agriculture:	100 %	
Other info:	Most important wholesaler in Moravia region	

Farmer coops, farmers

Company name		
PATRIA Kobylí, a.s.		
Role on the market		Farmer
contact person		Ing. Kamila Svobodová (kamila.svobodova@patriakobyli.cz)
Recycled products		Is not interesting for the company

Company name		
BONAGRO		
Role on the market		Farmer
Contact		Pavel Štěpánek (pavel.stepanek@bonagro.cz)
Recycled products		Is not interesting for the company

Company name		
Otoupal Marek, private farmer		
		Farmer
Contact		František Fráňa (tel. +420 734 507 426)
Recycled products		Is not interesting for the company

Annex E: Germany

Company Name	
	DRV Deutscher Raiffeisen Verband Address: Pariser Platz 3, 10117 Berlin, Deutschland Mail: info@drv.raiffeisen.de Phone: +49 30 856214-3
Role in the market	*Umbrella organization*, supports the 6 Main co-operatives and the 2 452 co-operatives
Brief description	Founded 1948 100 000 employees
Total Revenues 2012	€ 51.3 billion
Revenues Fertilizers	Not disclosed
Web	http://www.raiffeisen.de
Products: All types of fertilisers for cropland, fruits and vegetables, hobby gardening and turf	

The 6 Main Co-operatives (including DRWZ exhibited under „Other markets“)

Company Name	
	BayWa AG Address: Arabellastraße 4, 81925 München, Deutschland Mail: info@baywa.de Phone: +49 89 9222-0
Shareholders:	39.86 % - Free Float 35.02 % - Bayerische Raiffeisen-Beteiligungs-AG 25.12 % - Raiffeisen Agrar Invest GmbH
Region – Germany 491 Co-operatives	Bayern, Baden Württemberg, Sachsen, Sachsen-Anhalt, Thüringen, southern Brandenburg,
Region – Europe	Austria, Czech Republic, Slovakia, Hungary, Poland, Slovenia, Croatia, Serbia, Great Britain,
Region – worldwide	USA, New Zealand , Australia, Asia
Role in the market	Wholesaler , Retailer, Export, Blender, Consulting
Brief description	Founded 1923, Agricultural Cooperative 16 834 employees International trade company One of the most important Trading Company worldwide Nearly 3000 Sales Offices in 18 Countries
Total Revenues 2012	€ 10.5 billion
Revenues segment “Agrar” including fertilisers	€ 5.01 billion (48% of total revenues)
Revenues “Agrarhandel” incl. fertilisers	€ 3.4 billion
Sales Volume fertilisers	1.96 million tons in 2012
Web	http://www.baywa.de
Products: All types of fertilisers for cropland, fruits and vegetables, hobby gardening and turf	

Company Name	
	AGRAVIS Raiffeisen AG Address: Industrieweg 110, 48155 Münster, Deutschland Mail: info@agravis.de Phone: +49 251 682-0 Fax: +49 251 682-2534 Address: Plathnerstraße 4A, 30175 Hannover, Deutschland Mail: info@agravis.de Phone: +49 511 8075-0 Fax: +49 511 8075-3490
Shareholders	60.4 % - Co-operatives 29.3 % - Free Float 6.4 % - Employees 3.9 % - Farmer
Region	Nordrhein-Westfalen, Niedersachsen, Bremen, Berlin, Brandenburg, Hamburg, Mecklenburg-Vorpommern, Sachsen-Anhalt, Schleswig-Holstein.
Role in the market	Wholesaler , Retailer, Blender, Consulting
Brief description	Agricultural Cooperative 5 450 Employees 15 “Raiffeisen-Märkte”
Total Revenues 2012	€ 7.1 billion
Revenues in business area crops, plant protection and fertilisers	€ 3.4 billion
Web	http://www.agravis.de
Products: All types of fertilisers for cropland, fruits and vegetables, hobby gardening and turf	

RWZ Raiffeisen	RWZ Raiffeisen Waren-Zentrale Rhein-Main eG Address: Altenberger Straße 1a, 50668 Köln, Deutschland Mail: info@rwz.de Phone: +49 221 16380 Fax: +49 221 1638254
Shareholders	Co-operative
Region	Nordrhein, Nordeifel, Mittelrhein-Westerwald, Eifel-Mosel-Hunsrück, Hessen, Saar, Rheinhessen-Pfalz, Thüringen-Sachsen
Role in the market	Wholesaler , Retailer, Blender, Consulting
Brief description	Agricultural Cooperative, founded more than 100 years ago 2 740 Employees 158 Co-operatives
Total Revenues 2012	€ 2.5 billion
Revenues Fertilizers	€ 180 million
Sales Volume fertilisers	715 600 tons in 2012
Web	http://www.rwz.de
Products: All types of fertilisers for cropland, fruits and vegetables, hobby gardening and turf	
Raiffeisen	RWZ - Raiffeisen-Warenzentrale Kurhessen-Thüringen GmbH (Konzern) Address: Ständeplatz 1-3, 34117 Kassel, Deutschland Mail: info@raiffeisen-kassel.de Phone: +49 561 7122-0 Fax: +49 561 7122-444
Shareholders	47.3 % Raiffeisen-Kassel A-Beteiligungs GmbH & Co KG 47.3 % Raiffeisen-Kassel B-Beteiligungs GmbH & Co KG 5.4 % Free Float
Regions:	Hessen, Thüringen, Niedersachsen, Nordrhein-Westfalen, Schleswig-Holstein, Mecklenburg-Vorpommern, Sachsen-Anhalt
Role in the market	Import, Wholesaler , Retailer, Blender, Consulting, Recycling
Brief description	Agricultural Cooperative, founded more than 100 years ago 1 727 Employees
Total Revenues 2012	€ 1 billion
Revenues Fertilizers	€ 57 millions
Web	http://www-raiffeisen-kassel.de
Products: All types of fertilisers for cropland, fruits and vegetables, hobby gardening and turf	

Company Name	
	ZG Raiffeisen eG Address: Lauterbergstr. 1-5, 76137 Karlsruhe Phone: +49 721-352-0 Fax: +49 721-352-1509 E-Mail: info@zg-raiffeisen.de
Shareholders	Co-operative
Region:	Baden, Elsass, Lothringen
Role in the market	Import, Wholesaler , Retailer, Blender, Consulting
Brief description	Agricultural Cooperative, 1858 the first co-operative in Karlsruhe was founded. 1911 the original Company "ZG Raiffeisen" was founded. 1929 Fusion between "ZG Raiffeisen" and "Badischen landwirtschaftlichen Hauptgenossenschaft eGmbH" in the "Badischen landwirtschaftlichen Zentralgenossenschaft eGmbH" Since 1975 this Co-operative trades under the name "Raiffeisen-Zentralgenossenschaft Karlsruhe eG", since 2004 it is called "ZG Raiffeisen eG". 1 841 Employees 3 246 members
Total Revenues 2012	€ 1 billion – incl. ZG Raiffeisen Energie GmbH and ZG Raiffeisen Technik GmbH.
Revenues Fertilizers	Not disclosed
Web	http://www.zg-raiffeisen.de
Products: All types of fertilisers for cropland, fruits and vegetables, hobby gardening and turf	

Other co-operatives

Company Name	
	Hauptgenossenschaft Nord AG Hauptgenossenschaft Nord AG Address: Werftstraße 218 · D-24143 Kiel Mail: info@hage.hagekiel.de Phone: +49 431 / 70 23-0 Fax: +49 431 / 70 23 244
Shareholders	54.4 % - DLG- Danish Dansk Landbrugs Grovvareselskab a.m.b.a. 39.2 % - Swedish Lantmännen ek för 6.4 % - Free Float
Main subsidiaries	Roth Agrarhandel Ges.m.b.H. – 63.2 % Raiffeisen Agrodienst LEV – 56.0 %
Region	Schleswig-Holstein, Mecklenburg-Vorpommern, Hessen, Sachsen-Anhalt, Thüringen, Sachsen and Germany as such.
Role in the market	Import, Wholesaler , Retailer, Blender, Consulting
Brief description	Founded 1898 – Schleswig-Hosteinische Hauptgenossenschaft, since 2009 Hauptgenossenschaft Nord AG, Agricultural Cooperative 1 600 employees
Total Revenues 2012	€ 2.8 billions
Revenues in business area plant protection, fertilisers and crops	€ 1.0 billions
Web	http://www.hage-kiel.de
Products: All types of fertilisers for cropland, fruits and vegetables, hobby gardening and turf	

Private companies

Company Name	
Beiselen	**Beiselen GmbH** Address: Magirusstraße 7-9, 89077 Ulm, Deutschland Mail: info@beiselen.de Phone: +49 731 9342-0 Fax: +49 731 9342-159
Shareholder	Family owned
Role in the market	Import, Wholesaler , Retailer, Blender, Consulting
Brief description	Founded 1890, one of the most important private agricultural trade company in Germany. Fertilisers are their core business since over 100 years.
Total Revenues 2012	Not disclosed
Revenues in Fertilizers	Not disclosed
Web	http://www.beiselen.de
Products: All types of fertilisers for cropland, fruits and vegetables, hobby gardening and turf	

Company Name	
	Märka GmbH Address: Thura Mark 20, 06780 Zörbig, Deutschland Mail: info@maerka.de Phone: +49 34956 303 700 Fax: +49 34956 303 777
Shareholder	VERBIO AG – Majority Owner Family Sauter
Region	Former "Eastern Germany" and Poland
Role in the market	Import, Wholesaler, Manager and Consulting
Brief description	Märka is one of the most important acquisition dealers for grains, oilseeds, legumes, straw inclusive their financing, trading with fertilisers, crops and biodiesel. About 60 locations 1991 The "Treuhandanstalt" bought over the company "Märkische Kraftfutter GmbH" and the company was privatized. This was the beginning of the "Märka-Group".
Total Revenues 2012	Not disclosed
Revenues in the Section "Agrar" incl. Fertilizers	Not disclosed
Web	http://www.maerka.de
Products: All types of fertilisers for cropland, fruits and vegetables,	

Other Markets

Turf and garden

Company Name	
	DRWZ Deutsche Raiffeisen Warenzentrale GmbH Address: Reuterweg 51-53, 60323 Frankfurt/Main Phone: +49 49 69-7151-0 Fax: +49 49 69-7151-298 E-Mail: info@drwz.de
Shareholder	Agravis Raiffeisen AG – Münster and Hannover BayWa Aktiengesellschaft, München Raiffeisen-Warenzentrale Kurhessen-Thüringen GmbH, Kassel Raiffeisen-Waren-Zentrale Rhein-Main eG, Köln ZG Raiffeisen eG, Karlsruhe
Role in the market	*Holding*, Import, Retailer, Consulting, Services,
Brief description	Founded 1948
Total Revenues 2012	Not disclosed
Revenues in the Section “Agrar” incl. Fertilisers	Not disclosed
Web	http://www.drwz.de
Products: All types of fertilisers for hobby gardening and turf	

Annex F: Germany - Additional Information

Agricultural Structures

German farms are constantly decreasing in number and increasing in size. This is a slow process whereby also the total surface used for agricultural activities gradually decreases. The total agricultural area today is almost the same as in 1992/1993, but the average farm size is twice as large and the number of farms is less than half (Table 52).

Table 52: German farms and their acreages (Statistisches Bundesamt, 2013a).

Year	Farms in 1000 units	Area in 1000 ha	Farm size in ha
2011	293,9	16.721	3 56,9
2012	288,2	16.667	3 57,8
Change 2012 vs. 2011 in %	-1,9 %	-0,3 %	+1,6 %

Almost 80% of German farms cultivate between 5 and 100 hectares of cropland. However, 54% of farmland is part of farms between 50 and 500 hectares and 25% is part of farms of more than 500 hectares, 15% of which farms of more than 1’000 hectares. These are predominantly located in the eastern Federal States (Table 53).

Table 53: German farm sizes in hectare (ha), 2012 (Statistisches Bundesamt, 2013a).

Farm size in ha	Farms *		Areas	
	Number in 1.000	Share in percent	In 1.000 ha	Share in percent
under 5	25,5	8,8	50,9	0,3
5 - 10	44,2	15,3	321,4	1,9
10 - 20	60,5	21,0	907,6	5,4
20 – 50	73,1	25,4	2.440,4	14,6
50 – 100	50,4	17,5	3.548,1	21,3
100 – 200	23,2	8,0	3.134,1	18,8
200 – 500	7,7	2,7	2.252,3	13,5
500 - 1.000	2,2	0,8	1.542,4	9,3
1.000 and more	1,5	0,5	2.470,2	14,8
Total	288,2	100,0	16.667,3	100,0

The average farm size in Germany is about 58 ha, almost four times the average farm size in the EU27 (15 ha). Average farm sizes in Czech Republic (154 ha), U.K. (89 ha) and Slovakia (80 ha) are much larger and in Denmark (65 ha), Luxemburg (60 ha) and France (55 ha) they are of similar size. Average farm sizes are much smaller in all other European countries.

In terms of average farm size per Federal State, the new Federal States have very large average farm sizes with a record 280 ha in Saxony Anhalt, whereas the old Federal States host farms with average sizes of 42 ha, still almost three times as large as the European average but smaller than other agricultural systems such as the U.K., Denmark and France.

The total cultivated area in Germany is 16.7 million hectares, of which 11.8 million hectares (71%) are used for agricultural crop production and 4.6 million hectares (28%) are used as pasture land. Roughly 20% of the crop area is used for energy crops (Table 54).

Table 54: Farms in Federal States 2012 (Statistisches Bundesamt, 2013b).

Federal State	Number of farms in 1.000 units	Share in %	Acreage in 1.000 ha	Share in %	Acreage in ha per farm
Baden-Württemberg	43,1	15,0	1.420,7	8,5	33,0
Bayern	94,4	32,8	3.126,1	18,8	33,1
Brandenburg	5,5	1,9	1.319,6	7,9	239,9
Hessen	17,4	6,0	763,1	4,6	43,9
Mecklenburg-Vorpommern	4,7	1,6	1.343,1	8,1	285,8
Niedersachsen	40,5	14,1	2.596,4	15,6	64,1
Nordrhein-Westfalen	33,8	11,7	1.446,6	8,7	42,8
Rheinland-Pfalz	19,2	6,7	698,0	4,2	36,4
Saarland	1,2	0,4	77,5	0,5	64,6
Sachsen	6,1	2,1	908,3	5,4	148,9
Sachsen-Anhalt	4,2	1,5	1.171,4	7,0	278,9
Schleswig-Holstein	13,6	4,7	990,4	5,9	72,8
Thüringen	3,5	1,2	781,2	4,7	223,2
Federal state cities	1,0	0,3	24,9	0,1	24,9
Old states	264,2	91,7	11.143,7	66,9	42,2
New states	24,0	8,3	5.523,6	33,1	230,2
Germany total	288,2	100,0	16.667,3	100,0	57,8

Crops and yields

In terms of crops planted since 1992 corn shows a significant increase over the last 10 years whereas cropland used for wheat and barley is decreasing. The main reason for the increasing acreage planted with silage maize is its use as an energy crop (Figure 37).

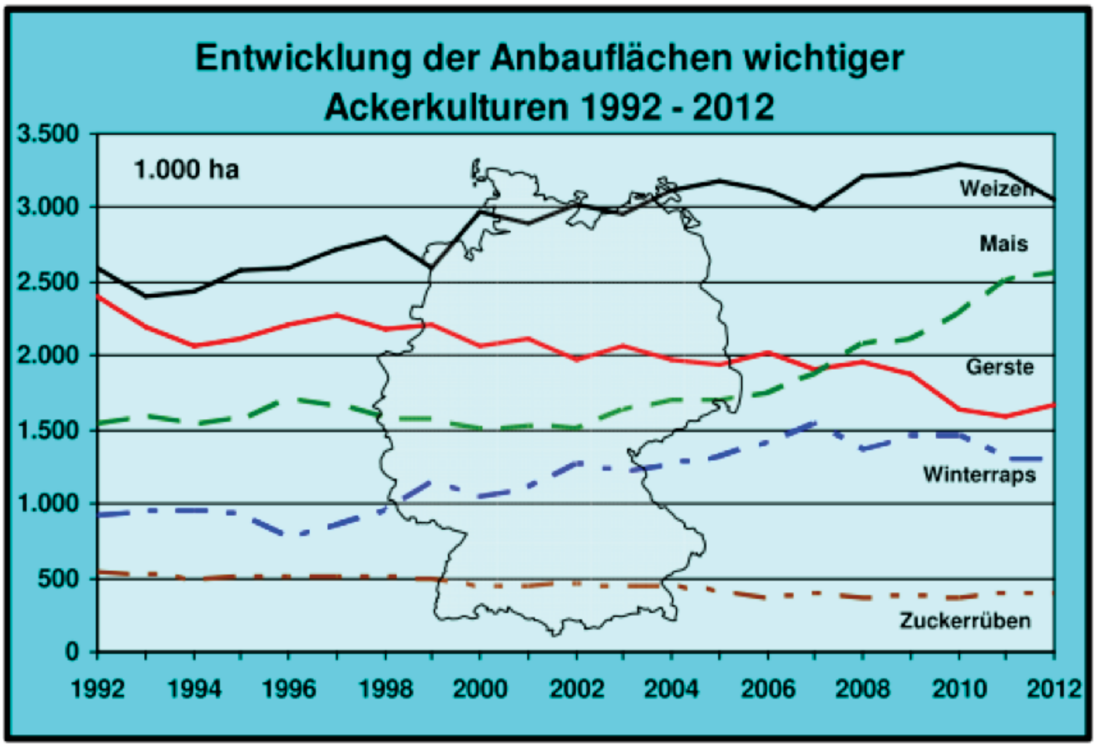

Figure 37: Production of most popular crops in 20 years (Statistisches Bundesamt, 2012)

Since the beginning of this century, average yields are stagnating, in comparison to increasing yields per hectare during the previous years. It is not clear if stagnating yields are due to climate conditions or if the maximum yields under climatic and soil conditions in Germany have been achieved.

However, as productivity in former GDR Federal States is still increasing and closing the gap to former FRG Federal States it may still be possible that Germany closes the gap to other European high productivity countries such as Belgium, Ireland and the Netherlands.

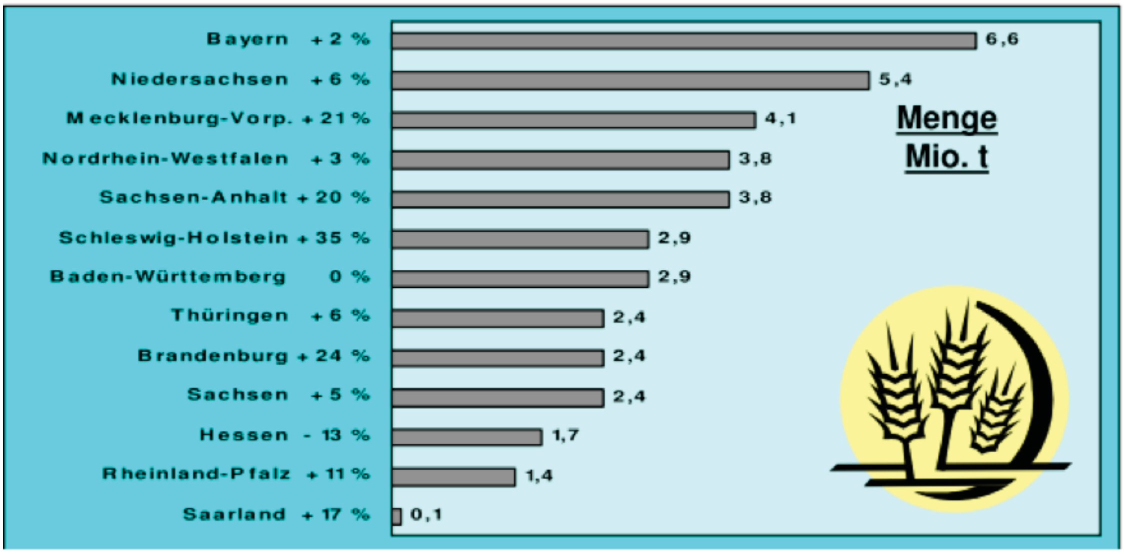

Figure 38: Total crop yield 2012 in million tonnes per Federal State and comparison to 2011 (Statistisches Bundesamt, 2012)

Although old Federal States and in particular Bavaria and Lower Saxony are still the leading agricultural producers in Germany, we see the most significant production increase in the order of 20-35% in the new Federal States (Figure 38).

In terms of average yield per hectare and Federal State, new Federal States are gradually closing the gap to the leading States Schleswig-Holstein, Northrhine-Westfalia and Lower Saxony (Figure 39).

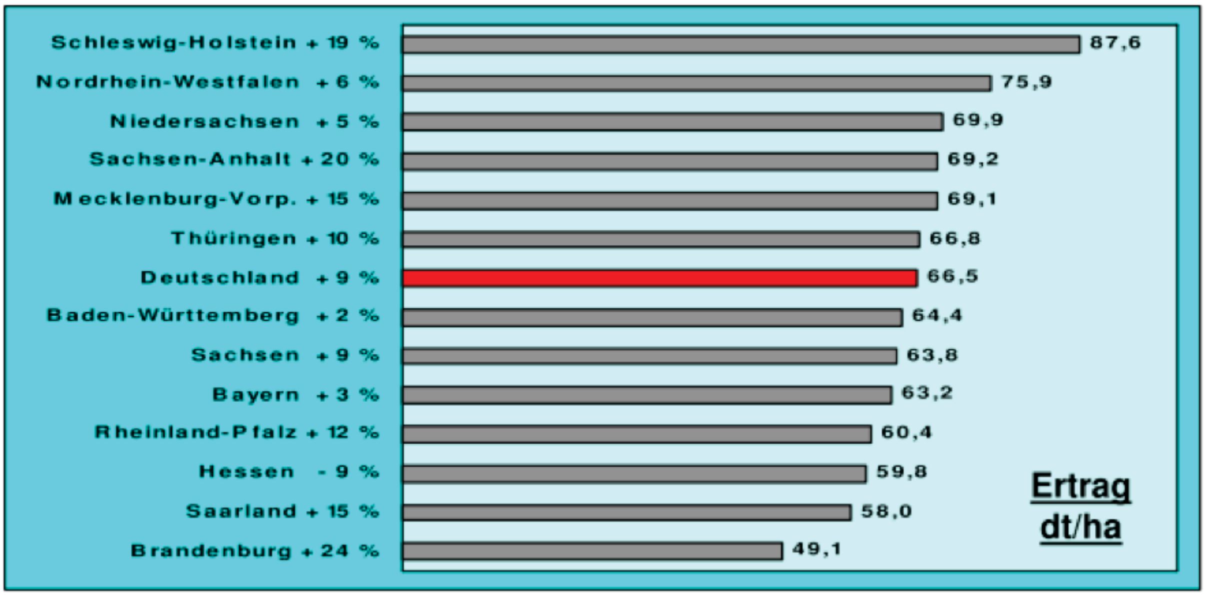

Figure 39: Average crop yield in dt/ha per Federal State, preliminary result for 2012. (Statistisches Bundesamt, 2012)

In terms of total average yield, German crop production is with 65 dt/ha only 10% higher than the average of EU15 Member States (59 dt/ha) and about 25% higher than the average yield of EU27 Member States. Belgium (90 dt/ha), Ireland (85 dt/ha) and the Netherlands (80 dt/ha) have much higher average crop yields in comparison to Germany (Table 55).

Table 55: Crop production in Germany in terms of acreage and yield per crop type (Statistisches Bundesamt, 2012)

Crops	Acreages in 1'000 ha		Yield in 1'000 t		Yield/hectare in Dt	
	2011 1)	2012 2)	2011 1)	2012 2)	2011 1)	2012 2)
Total cereals 3)	6.491	6.516	41.920	44.955	64,6	69,0
Wheat	3.248	3.061	22.783	22.432	70,1	73,3
Winter wheat	3.173	2.897	22.396	21.414	70,6	73,9
Summer wheat	60	153	314	959	52,3	62,8
Durum wheat	15	12	73	60	47,3	49,3
Rye / Maslin	614	710	2.521	3.893	41,1	54,8
Triticale	383	373	2.004	2.306	52,3	61,8
Barley	1.598	1.683	8.734	10.422	54,7	61,9
Winter barley	1.178	1.093	6.676	7.097	56,7	64,9
Summer barley	420	590	2.058	3.325	49,0	56,4
Oats	143	146	627	758	43,7	52,1
Maslin	16	32	68	152	41,8	47,4
Grain maize	488	5.105	184	4.991	107,2	97,9
Peas	56	45	155	139	27,7	31,0
Field beans	17	16	61	57	35,6	36,8
Sweet lupins	22	18	28	32	12,8	17,8
Sunflowers	27	26	53	62	19,8	23,3
Potatoes	259	238	11.837	10.586	457,6	444,7
Rape/turnip rape	1.329	1.307	3.870	4.820	29,1	36,9
Winter rape	1.307	1.301	3.830	4.805	29,3	36,9
Spring oilseed rape	21	7	39	15	18,5	22,2
Cereals for whole-crop harvest	68	57	1.367	1.295	202,0	228,9
Silage/green maize	2.029	2.056	96.793	92.985	476,1	452,2

1) 2011 final result; 2) Cereals, potatoes and oilseed rape - as of end of September 2012, other crops - as of August 2012; 3) Without other cereals for grain (e.g. millet, sorghum, canary)

The German fertiliser market

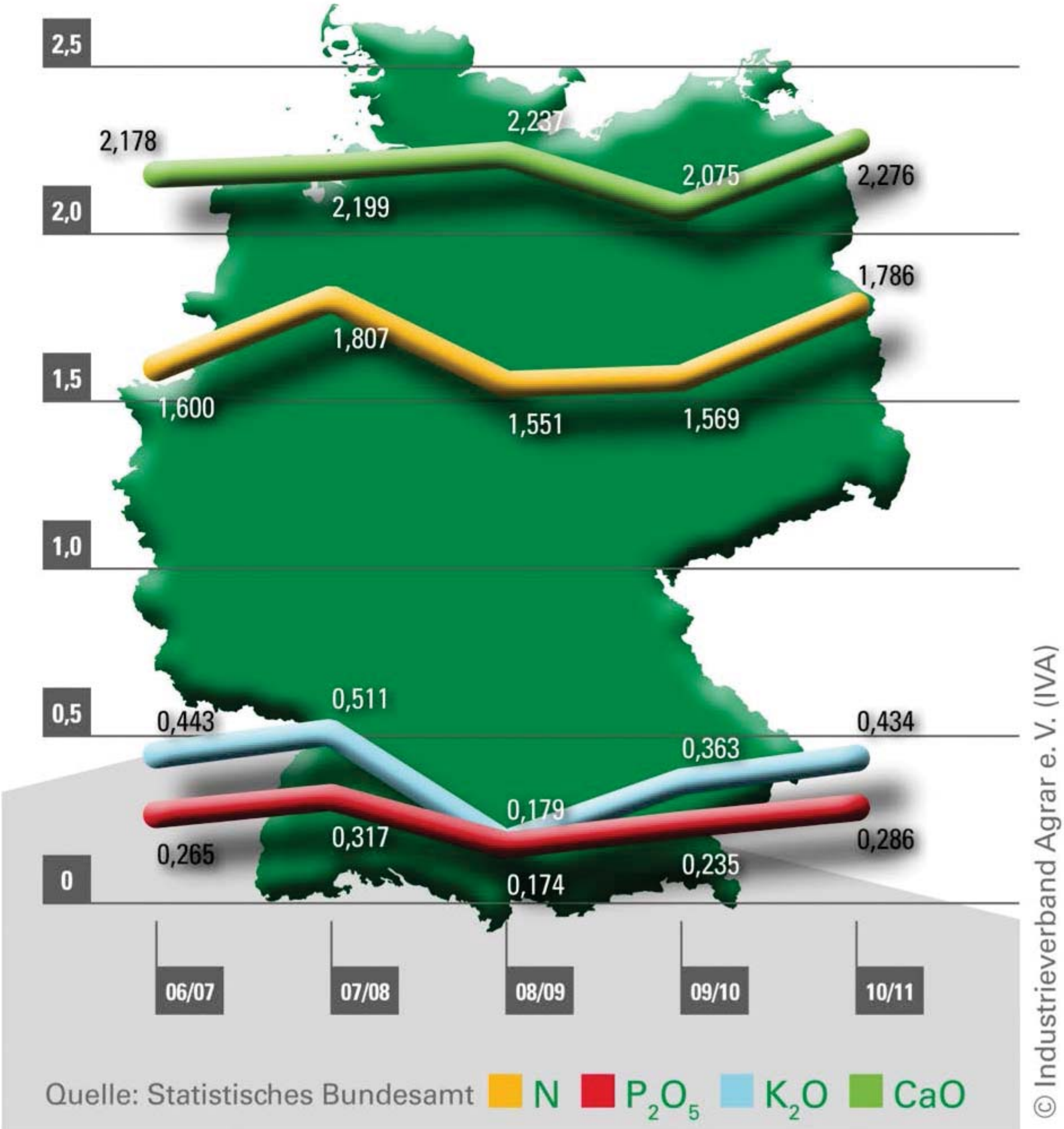

Figure 40: Recent development of fertiliser sales in million tonnes of nutrients in Germany (Industrieverband Agrar, 2012)

Figure 40 shows that since 2007 fertiliser sales in Germany have stabilized at a low level. Particularly mineral phosphate and potassium fertilisers are in average spread in volumes much below the average crop uptake (Statistisches Bundesamt DESTATIS, 2012). Consequentially farmers are mining nutrients from the soils that had received high phosphate loads in the past, particularly during the years 1963-1989 when up to 1.3 million tonnes of P_2O_5 were sold and spread on German cropland.

During the 1990s, sales had dropped to some 500.000 tonnes, still more than two times the actual quantities. In 2008/2009 sales hit a record low of 174.400 tonnes, just 15% of the volume having been achieved 25 years earlier. In some Federal States, more pronounced in the eastern part of the country, this practice cannot last much longer because of more and more soils being phosphate deficient and the impact on yields will be quantifiable in a near future. The problem can also be seen as a distribution problem, because farmyard manure, being used as a secondary phosphate fertilizer in other Federal States is only scarcely available in the eastern provinces (Figure 41) (Statistisches Bundesamt, 2012).

Wirtschafts-jahr	Inlandsabsatz 1 000 t Nährstoff				Aufwand an Nährstoffen kg je ha landwirtschaftlich genutzter Fläche [1)]			
	N	P_2O_5	K_2O	CaO	N	P_2O_5	K_2O	CaO
1980/81	2 297,9	1 240,7	1 687,3	2 325,6	124,1	67,0	91,1	125,6
1981/82	2 022,1	1 087,6	1 600,6	2 453,4	109,5	58,9	86,7	132,9
1982/83	2 126,9	1 057,2	1 477,6	2 658,0	115,6	57,5	80,3	144,5
1983/84	2 031,0	1 066,1	1 523,8	2 898,9	110,8	58,2	83,1	158,1
1984/85	2 189,9	1 051,4	1 532,3	2 647,7	119,8	57,5	83,8	144,8
1985/86	2 267,9	1 052,9	1 516,5	2 842,4	124,3	57,7	83,1	155,8
1986/87	2 309,0	1 035,4	1 507,2	3 022,2	126,8	56,9	82,8	166,0
1987/88	2 429,4	990,7	1 429,2	2 975,5	134,4	57,0	72,6	164,0
1988/89	2 372,4	1 019,5	1 474,0	3 413,4	129,6	54,1	74,6	188,6
1989/90	2 167,3	884,4	1 312,6	3 076,2	120,0	50,1	66,7	170,4
1990/91 [2)]	.	.	.	.	.	.	.	.
1991/92 [2)]	.	.	.	.	.	.	.	.
1992/93 [2)]	.	.	.	.	.	.	.	.
1993/94	1 612,2	415,4	644,7	1 560,3	93,2	24,0	37,3	76,8
1994/95	1 787,4	450,7	667,5	1 831,6	103,1	26,0	38,5	93,2
1995/96	1 769,2	401,7	652,2	1 886,5	102,1	23,2	37,6	96,3
1996/97	1 758,0	415,1	645,8	1 979,0	101,5	24,0	37,3	101,7
1997/98	1 788,4	409,6	658,9	2 248,4	103,0	23,6	37,9	116,8
1998/99	1 903,0	406,8	628,7	2 264,6	111,0	23,7	36,7	120,6
1999/00	2 014,4	420,3	599,2	2 508,3	118,0	24,6	35,1	136,9
2000/01	1 847,6	351,3	544,0	2 171,1	108,4	20,6	31,9	117,4
2001/02	1 791,7	314,6	505,9	2 310,5	105,6	18,5	29,8	124,9
2002/03	1 787,8	327,4	479,7	2 153,8	105,1	19,3	28,2	117,3
2003/04	1 827,8	284,1	486,5	2 098,8	107,4	16,7	28,6	116,3
2004/05	1 778,4	302,7	478,4	1 954,8	104,4	17,8	28,1	108,9
2005/06	1 785,0	274,0	426,1	1 897,0	105,3	16,2	25,1	106,0
2006/07	1 599,8	264,6	442,6	2 177,7	94,4	15,6	26,1	122,7
2007/08	1 807,2	316,7	511,3	2 199,1	106,8	18,7	30,2	125,2
2008/09	1 550,6	174,4	179,2	2 237,0	91,6	10,3	10,6	126,4
2009/10	1 569,0	235,2	362,8	2 074,9	92,9	13,9	21,5	117,8
2010/11	1 786,5	286,4	433,7	2 276,4	106,9	17,1	26,0	130,7
2011/12	1 640,4	247,1	386,4	2 397,7	98,1	14,8	23,1	138,1

Figure 41: National sales of fertilisers per nutrient type in Germany (Statistisches Bundesamt, 2012)

Annex G: Spain

Organisation Name	**COAG - Coordinadora de Organizaciones de Agricultores y Ganaderos**
Location	Spain
Main Activities	• To support an agricultural social model • To promote Spanish agricultural and livestock products • To help the different ministries in the construction of the agricultural national strategies and laws • To ensure healthy and friendly agricultural process with the environment • To protect and enhance women participation in the agricultural sector
Description	COAG was constituted formally and legally in 1977. COAG is a democratic, unitary and independent organization, which has never been tied either to any political party or to any working trade union. The current objectives of the organization are basically the same that the ones pursued from its foundation, although adapted to the constant change of economic parameters. COAG keeps on claiming the participation of the farmer in the market by means of its Organizations of Agrarian Producers and granting special importance to those ones that COAG considers to be natural economic structures: the agrarian cooperatives. COAG's essential claim is the defense of the farming activities as factors that avoid the abandonment of the country, even where is not excessively productive, for the social benefit that it supposes, for the contribution to the preservation of the environment and as guarantee of food quality against the tendencies of a systematic agrarian productivity schemes. COAG bets for a sustainable agriculture in a living rural environment. The agriculture model in a living rural environment must produce quality food in sufficient quantity, respecting and maintaining the balance with the environment and guarantying a worthy standard of living for the agrarian population: A sustainable agriculture with agricultural policies that put limits to the current process of decrease of agrarian assets and help the population in the rural environment.

Organisation Name	**ASAJA - Asociación Agraria de Jóvenes Agricultores**
Location	Spain
Main Activities	To defend family farms and agricultural enterprises in any form of private initiative, as well as its development as a viable economic activity
Description	ASAJA, was created in 1989 as a result of the merger agreement between CNAG, CNJA and UFADE. The result was the constitution of the biggest agrarian professional organization in Spain with more than 200.000 affiliates, both owners and lodgers, and the members of the families who collaborate in the agriculture activities. ASJA's main objective is to defend the familiar operations and agrarian companies under any form of private initiative, as well as the development as viable economic activity, looking for the progress of the access conditions for the young people to the exercise of the activity, its professional training and in general defending both at national and international level of the competitiveness of the Spanish agricultural sector. ASAJA is provided with a national head office, 15 regional centers, 40 provincial offices and 810 local offices, in addition to an office of permanent representation in Brussels.

Organization Name	**UPA - Unión de Pequeños Agricultores y Ganaderos**
Location	Spain
Main Activities	UPA is a young and dynamic organization, which works to serve family and professional farmers. Therefore, it offers many services to its members like advice and training courses.
Description	The Union of Small Farmers and Stockbreeders (UPA) is the professional organization that clusters, represents and defends the interests of the agriculture and livestock professionals in Spain. UPA is the organization that agglutinates the majority group of the agrarian sector: the familiar organizations whose holders are small and medium-sized farmers and stockbreeders. UPA belongs to the structure of self-employed persons of the General Union of Workpeople (UGT). The Union is provided with more than 80.000 affiliates across the country: farmers and professional stockbreeders of all the sectors and in all the autonomous regions, which have UPA as the organization that represents themselves at all the levels and gives the services that demand the agrarian developments. UPA is part of the Economic and Social Council (CES) and takes part in all the regional or national forums in Spain. UPA is also a member of the Committee of Agrarian Professional Organizations of the European Union (CUP) – where all the performances framed in the Common Agricultural policy are debated and the proposals corresponding to the European Commission and the Cabinet of the European Union are carried out–; UPA is present in the Economic and Social Committee (CES) of the EU and is the first Spanish agrarian organization being member of the World Organization of Farmers (WFO).

Cooperativas Agro-Alimentarias España

Organisation Name	**Cooperativas Agro-alimentarias España**
Location	Spain
Main Activities	To represent and defend the interests of agribusiness cooperatives in front of the various national bodies and institutions of the European Union.
Description	Agri-food Cooperatives Spain (previously called Spanish Confederation of Agricultural Cooperatives CCAE) is the organization that represents and defends the economic and social interests of the Spanish agricultural cooperative movement. Agri-food Cooperatives Spain is composed by 16 Federations and Territorial Unions of Agricultural Cooperatives (FUTs) and Sergacan (Cantabrian 2nd degree cooperative). Their services and trade areas are based in their respective Autonomous Communities. Thus Agri-food Cooperatives Spain is the common body representing all the cooperatives of every Autonomous Community of the Spanish territory. Agri-food Cooperatives Spain defends cooperative's interests towards the national Administration, the European Union and the rest of the social and economic agents of the sectors where agricultural cooperatives perform their activities. Moreover, Agri-food Cooperatives offer training, information and advisory services through their offices in Madrid and Brussels. In that way they are contributing to improve the agricultural cooperation's efficiency in achieving its economic, social and human goals.

Organisation Name	**Asociación Española de Fabricantes de Agronutrientes**
Location	Spain
Main Activities	To support and enhance the development and expansion of the agricultural estate.
Description	AEFA (Spanish Agricultural nutrients Manufacturers Association) is a non-profit association formed by Spanish manufacturers of agricultural nutrients market. AEFA promotes development and expansion of the agricultural estate. All UEFA members own the permissions and legal licenses to practice their activities; therefore, they are subject to the controls of the Spanish Ministry of Agriculture, Fisheries and Food. From the natural business independence of every member and within the free market system, all the associate companies are committed to respect the purest commercial and manufacture ethics so that the farmers purchase high quality products, useful and profitable for their crops.

Fertilizers Companies in Spain

Company Name	**Desarrollo Agrícola y Minero, S.A.**
Location	Zaragoza, Aragon
Activity	Producer and Wholesaler
Company description	Spanish company specialized in the development, production and commercialisation of the following products: humic acid-based products, plant nutrients, biostimulants and biochemical plant protection products.
Products	Natural Leonardite, Organic fertilizer, Liquid and solid humic acids for organic fertigation.

Company Name	**Adiego Hermanos, S.A.**
Location	Zaragoza, Aragon
Activity	Wholesaler
Company description	Adiego Chemical Products offers a wide range of products for all types of industries and activities Adiego guarantee the quality of all its products and production processes in order to offer the best services to its clients.
Products	Monoethanolamine, Phosphorous, Calcium hydroxide, Calcium and iron chloride, Monosodium phosphate anhydrous, Monoammonium phosphate, Phosphate trisodium, etc..

Company Name	**Agri Technology Investigaions S.L**
Location	Valencia, Comunidad Valenciana
Activity	Producer and Wholesaler
Company description	Spanish company, whose aim is to offer the most appropriate solution to the crops fields. Their technologies are the result of cooperative investigations between universities and research institutes around Europe.
Products	Fertilizers, Organic Fertilizers.

Company Name	**Agricola de Aspe**
Location	Alicante, Comunidad Valenciana
Activity	Producer and Wholesaler
Company description	Company based on the develop and the commercialization of fertilizers for their use into the agricultural sector. Through its R&D department, the company expects to create a competitive advantage against the other companies of the market.
Products	NPK Fertilizer, Potassium, Nitrogen, Kelom Calcium, Boron, Molybdenum, Phosphorus

Company Name	**Agrofluide, S.L.**
Location	Cordoba, Andalusia
Activity	Producer and Wholesaler
Company description	AGRIFLUIDE has dedicated the last 25 years to produce liquid fertilizers for its clients and to guarantee the best quality in its.
Products	Nitro-K, Fosforo, Liquid Fertilizers

Company Name	**Agrimartin Fertilizantes, S.L.**
Location	Teruel, Aragon
Activity	Producer and Wholesaler
Company description	Since 1986, Agrimartin Fertilizers has been producing and selling organic fertilizers in Teruel. Agrimartin counts currently with the largest selection of fertilisers for modern agriculture within the Spanish manufacturer market. As a manufacturer, Agrimartin produces and commercializes a full range of solid and liquid fertilisers aimed to cover all the necessities of its clients´ activities.
Products	Solid fertilizers (organic, organomineral, mineral, special, nitrogenus, salts, soluble, crystallines), Liquid Fertilizers (humic, root-promoters, deficiency correctors, nutritional)

Company Name	**AGROSERNA, S.L.**
Location	Alicante, Comunidad Valenciana
Activity	Wholesaler
Company description	AGROSERNA, S.L. is a company dedicated since 1992 to the commercialization of fertilizers and pesticides. In addition, the company collaborates with other European companies and scientific institutes in the development and testing of novel active ingredients of adaptogenic origin.
Products	Urea, Ammonium sulphate, Potassium sulphate, Calcium nitrate, Monoammonium Phosphate, Monopotasium phosphate, Winnfos root, Winnfos leaf.

Company Name	**Agromediterránea Business Group**
Location	Totana, Murcia
Activity	Producer, Importer and Wholesaler
Company description	Fuentes Fertilizantes is the umbrella name under which Agromediterránea Business Group companies carry out their activities. These mentioned activities are concentrated in: R&D, testing, manufacturing, as well as commercialization and distribution of the most complete range of fertilizers.
Products	Liquid and solid fertilizers of high solubility and purity, designed for fertigation application

Company Name	**Tarazona**
Location	Silla, Comunidad Valenciana
Activity	Producer and Wholesaler
Company description	TARAZONA is a company with more than 50 years of experience in fertilizers and industrial additives in different sectors. Within its fertilizers area, the company produces and distributes a wide variety of both intermediate and final products. In addition, within its industrial area, the company produces various additives for different industrial applications, highlighting the production of Diesel Exhaust Fluid (DEF) under the AdBlue® trademark.
Products	Solid fertilizers, Liquid fertilizers, Industrial additives, Animal Nutrition

Company Name	**Arvensis Agro, S.A.**
Location	Zaragoza, Aragon
Activity	Producer and Wholesaler
Company description	Arvensis is one of Spanish companies that uses the most evolved technologies in the market to elaborate its products. Arvensis´s activities cover all the production phases of its products, including: design, development and formulation.
Products	Fertilizers, bio-stimulants, Phytofortifiers, Ecological plant and protectors.

Company Name	**Atlantica Agricola, S.A.**
Location	Alicante, Comunidad Valenciana
Activity	Producer and Wholesaler
Company description	Atlántica Agrícola aims to provide to the agricultural sector all types of nutritional and sanitary alternatives thorugh its certified quality products. Its quality policy is certified by: ISO 9001:2000 - Quality management system certified by Bureau Veritas RD 824/2005 - Bureau Veritas certifies that its production department follows this specific regulation for controlling its production processes.
Products	Humic Acids, Liquid Fertilizers, NPK Fertilizers, Organic Fertilizers

Company Name	**Infertosa**
Location	Valencia, Comunidad Valenciana
Activity	Producer
Company description	INFERTOSA is a specialized company in producing and supplying organic materials for agriculture, nurseries and environment. For that purpose, the infrastructure of the company counts with bogs (black peat), more than 150,000 m^2 of facilities and 5,000 m^2 for the manufacturing and supplying its different products.
Products	Organic Fertilizers, Solid and Liquid Fertilizers

Company Name	**Asturiana de Fertilizantes, S.A. (CHEMASTUR)**
Location	Castrillon, Asturias
Activity	Producer, Exporter and Wholesaler
Company description	ASTURIANA DE FERTILIZANTES, SA was born in 2003 and started its production activities in 2006. Its activities lets the distribution of different products to domestic and international markets. CHEMASTUR, SA is specialized in the manufacture and distribution of phosphate fertilizers, selling its products to large consumers and fertilizer manufacturers.
Products	Phosphate Fertilizers

Company Name	**FERTIBERIA**
Location	Headquarter office in Madrid, Comunidad de Madrid
Activity	Producer and wholesaler
Company description	Fertiberia is the leading company in the Spanish fertilizer industry, and one of the leading fertilizers producers in the European Union. With an annual production capacity of five million tonnes, both intermediate and final products. For that purpose, Fertiberia has five production units: Huelva, Palos de la Frontera, Puertollano, Sagunto and Avilés.
Products	Solid and liquid fertilizers, Simple and complex fertilizers

Company Name	**FERTINAGRO**
Location	Teruel, Aragon
Activity	Producer, exporter and wholesaler
Company description	Fertinagro is the first manufacturer of complex fertilizers in Spain, also is established in France, Italy, Portugal, Morocco and Algeria through its international subsidiaries. Their main activities are: the production of agrochemical products, mainly fertilizers.
Products	Solid and liquid fertilizers, Simple and complex fertilizers, Organic Fertilizers

Company Name	**FERTISAC**
Location	Granada, Andalusia
Activity	Producer and wholesaler
Company description	FERTISAC is a Spanish company dedicated to manufacture and market solid fertilizers for agriculture since 1921. Throughout the years, FERTISAC has managed to recycle and enhance the traditional expertise, quality, productivity and business goodwill of a basic and strategic industry such as fertilizer manufacturing.
Products	Superphosphates, complex and compound NPK fertilizers and organo-minerals.

Company Name	**IBERPOTASH, S.A.**
Location	Barcelona, Catalonia
Activity	Producer, exporter and wholesaler
Company description	Iberpotash, S.A. is part of the Fertilizers division within the ICL multinational world leader in production of fertilizers and chemicals, ranking sixth in the world in potash production. Iberpotash exports over 70% of its production to countries in Asia, North Africa, Europe and South America, among others. Their mines are one of the most important reserves of potash in Western Europe. The advanced mining technology and the active participation of ICL Fertilizers ensure continuous supply of fertilizer essential to modern agriculture.
Products	KCl, NaCl

Company Name	**MIRAT**
Location	Salamanca, Castilla y Leon
Activity	Producer, exporter and wholesaler
Company description	The company started its activity in the fertilizer sector with a primitive factory of lime superphosphate that was built in 1875. Fertilizers MIRAT has always been outstanding new technologies in order to offer more advanced chemical fertilizers. They are manufacturers and have a wide range of fertilizers widely accepted and internationally recognized as the range "N. P. K. Forterra" recognized quality.
Products	Granular superphosphate and the full range of complex fertilizers, both binary (NP, PK) and ternary (NPK). The vast majority of them are made from powdered superphosphate as source of phosphorus (P2O5).

Company Name	**REPSOL**
Location	Spain
Activity	Producer, wholesaler
Company description	REPSOL is a global integrated energy company that develops upstream and downstream activities worldwide. Its strategy allows them to develop attractive new business areas, diversifying their asset portfolio and generating added value.
Products	Potassium adipate, Ammonium Sulfate

Company Name	**SADER - FERTIEUROPA GROUP**
Location	Lugo, Galicia
Activity	Producer
Company description	SADER Group manufactures a wide range of fertilizers, including: phosphate (P), (PK) and complex (NPK) in order to meet the necessities of the basal dressing of all crops.
Products	Phosphate (P), (PK) and complex (NPK)

Company Name	**TIMAC AGRO**
Location	Pamplona, Navarra
Activity	Producer and wholesaler
Company description	AGRO Timac is a company dedicated to develop, manufacture and market fertilizers and animal feed products. It belongs to the Multinational Roullier, which is a national market leader in special fertilizers. Timac AGRO, as a specialist in plant and animal nutrition, manufactures solid fertilizers, water soluble, liquid bio-stimulants and feed products. Timac AGRO, as a local company, is headquartered in Pamplona and its production plant is located in Lodosa, from which its products reach 35 countries.
Products	Granulated Fertilizers, Liquid Fertilizers, Organic Fertilizers

Company Name	UBE CHEMICAL EUROPE
Location	Castellon, Comunidad Valenciana
Activity	Producer
Company description	With more than 100 years, UBE Industries has continually responded successfully to the changes in society and in the industry by developing a wide range of advanced business solutions and by manufacturing a large variety of state-of-the-art products. The keywords at UBE are technology, progress and reliability. these concepts support the group in the creation of new products and applications that provide industry with improved business opportunities.
Products	Ammonium Sulphate Crystalline, Ammonium Sulphate Granular, Ammonium Sulphate Solution, Nitrosulf

Company Name	**YARA IBERIAN**
Location	Madrid, Comunidad de Madrid
Activity	Producer, exporter and wholesaler
Company description	Yara's core business, the production of fertilizers, is closely related to agricultural productivity and food production. Just as we need minerals and essential nutrients to grow in health and strength, so need crops worldwide. For this reason fertilizers are used to supplement the soil nutrient reserves with minerals that can be absorbed and used quickly by crops.
Products	Soluble Fertilizers, NPK, Complex Fertilizers

Company Name	**TESSENDERLO CHEMIE ESPAÑA**
Location	Madrid, Comunidad de Madrid
Activity	Producer, exporter and wholesaler
Company description	Tessenderlo Chemie España has its headquarters in Madrid and delivers phosphates from its stores in the north of Spain. The commercial policy of the company is based upon quality services and customer satisfaction. This mentioned policy has made its "Windmill' brand phosphates a synonym of quality.
Products	Phosphates and Potassium Sulphate Fertilizers

Company Name	**AgriTecno Fertilizantes**
Location	Valencia, Comunidad Valenciana
Activity	Producer
Company description	FERTILIZERS Agritecno is a Spanish company specialized in the manufacture of amino acid & fulvic acids, microelements and formulation of specific nutrients, mainly based on domestic raw materials of plant origin. Their products are targeted to agriculture and nutrition specialist in both conventional and organic crops.
Products	Amino acid & Fulvic acids and microelements

Company Name	**HEROGRA**
Location	Granada, Andalusia
Activity	Producer and Wholesaler
Company description	Herogra, and its subsidiaries form an important group of Companies in the Intermediate Fertilizer Sector, relevant in the European context, by a series of traits or distinction, whose area of operation is: The southern half of Spain in Liquid Fertilizers. Andalusia compounds and conventional fertilizers. National and Increasing Exports in Foliar and correctors.
Products	Liquid Fertilizers, Complex Fertilizers

Company Name	**INDALVA, S.L.**
Location	Alicante, Comunidad Valenciana
Activity	Producer and Wholesaler
Company description	INDALVA, S.L. produces granulates carriers of Illite and Quartz, and commercialises Sepiolite and Attapulguite, all of which are classified in Tyller standard meshes. These carriers are used for the manufacturing of phytosanitary products. INDALVA, S.L. has modern facilities for the formulation and packing of phytosanitary products for third companies, such as Microgranulates (insecticides and herbicides), WDG (Water Dispersible Granules insecticides, fungicides and micronutrients) and Glyphosate (herbicide liquid).
Products	Microgranules, Soluble Granules, Liquid

Company Name	**Al'n**
Location	Malaga, Andalusia
Activity	Producer and Wholesaler
Company description	AGROLABORATORIOS NUTRICIONALES, S.A. (ALN, S.A.), was founded in 1994 with the objective of investigate and develop agricultural products. This investigation is carried out through their own laboratories and in cooperation with Scientifics from the department of biochemistry of Cordoba and Seville Universities; Aln is also in collaboration with agrarian investigation centres in Spain and Europe.
Products	Organic Fertilizers

Company Name	**Jiloca Industrial**
Location	Valencia, Comunidad Valenciana
Activity	Producer
Company description	Jiloca Industrial, S.A. is a fertilizer producer located in Valencia, whose main objective is being the leader in manufacture products bound to agriculture. AgriNutrients: organic soil improvers, humic acids, fulvic acids, amino acids, chelated microelements, biostimulants, Soluble solids NPK, etc., for this purpose they count on the advantage of the raw materials ownership coming from the different activities performed by different enterprises part of the solid group to which they belong.
Products	Organic soil improvers, Humic acids, Fulvic acids, Amino acids, Chelated Microelements, Biostimulants, Soluble solids NPK

Company Name	**Altincoagro**
Location	Lerida, Catalonia
Activity	Producer, Exporter and Wholesaler
Company description	Altinco was created in 1994 by experts in plant nutrition and chemical engineers specialized in product development for agriculture.
Products	Solid and Liquid Fertilizers

Company Name	**Artal**	
Location	Valencia, Comunidad Valenciana	
Activity	Producer and Wholesaler	
Company description	Artal was founded in 1895 and is dedicated to manufacture and market of Agronutrients. They have a wide range of nutritional products. Due to the constant innovation, evolution and demands of different markets, Artal has its own laboratories that allow them to develop and formulate competitive and quality products in line with the current demand of Vegetal Nutrition.	
Products	Organic matter, Humic acids, Aminoacids, Bioestimulants, Complex and organic fertilizers	

Product	Price €/ton without TAX													
	jan-11	**feb-11**	**mar-11**	**apr-11**	**may-11**	**jun-11**	**jul-11**	**aug-11**	**sep-11**	**oct-11**	**nov-11**	**dec-11**	**jan-12**	**feb-12**
Potassium nitrate	777	748	765	769	809	783	789	820	890	819	798	832	608	772
Phosphoric acid	635	599		603	627	610	648	688	740	670	700	700	685	523
Calcium ammonium nitrate	319	325	299	298	304	299	299	323	350	310	306	322	308	283
Ammonium sulfate	221	232	238	242	251	248	239	252	245	251	228	244	239	243
Urea	403	445	372	398	373	370	388	450	480	462	395	447	428	432
DAP (Diammonium phosphate)	493	464	523	514	513	520	525	525	570	585	560	560	573	944
MAP (monoammonium phosphate)	1’003	1’025	1’106	1’000	1’100	1’103	1’103	1’106	1’263	1’453	828	1’113	1’041	737
Monopotassium phosphate	1’344	1’388	1’300	1’300	1’475	1’388	1’388	1’550	1’525	1’450	980	1’376	1’215	1’300
Calcium nitrate	330	335	320	318	345	333	333	360	320	340	335	339	338	386
Phosphorous pentoxide		245	240	239	240	235	280	240	240	223		234	223	943
Calcium phosphate	25	25	29	32	32	32	32	32	32	32	32	32	32	32
Nitric acid	380	377		505	423	475	449	333		345	480	386	413	256
Ammonium nitrate (33% of N)	388	388	392	380	368	398	400	418	418	420	400	414	410	400
Nitrosulphate ammonium (20% of N)	303	295	338	338	320	310	344	300	315	355	274	313	315	203
NPK (8-15-15) granulated	355	344	335	346	353	350	320	360	385	355	370	368	363	
NPK (15-15-15) granulated	382	410	394	401	389	417	451	471	403	419	356	412	388	432
NPK (8-24-16) granulated		440	450	430	399	457	541	430	455		409	431	409	
Entec (24-8-7) slow iberation														437
Soluble potassium sulfate	619	605	610	639	650	630	630	610	635	623	626	624	625	610
Insoluble potassium sulfate	450	463	463	457	465	464	464	463	470	470	470	468	470	461

: Fertilizers Prices in the Spanish Market in 2011, (COAG; IFA, 2012)

Annex H: Switzerland

Companies

Company Name	**AGROline**
Activity	Wholesaler, Retailer
Company information*	Agroline was founded in 1990 and is a daughter company of the Fenaco group. It gets its products from the CU Agro AG and Lonza. Agroline distributes its products by Landi or by their own distribution centre in Roggwil. Almost all of their products are made in Switzerland. Every 3 years they implement the "Agroline Feldtage" which is the biggest agriculture exhibition in Switzerland. Agroline is interested in P-recycling fertilizer and require good price and quality, the legal permission and water solubility. It is important that presence of medical residues or other organic contaminants can be excluded.
P-turnover*	300 - 1000 t/a

* According to the company interviews.

Company Name	**Calcium Agro AG**
Activity	Importer, Wholesaler
Company information*	Calcium Agro is a private distributor for grain and feed additives. Additionally they also distribute plant nutrition as a wholesaler. They import the fertilizers in bulk or already packed as finished products from the producers or wholesalers from neighbouring countries. Calcium Agro is interested in recycling fertilizer and they see a possibility to distribute it over their horticultural markets.
P-turnover*	300 -1000 t/a

* According to the company interviews.

Company Name	**CU Agro AG**
Activity	Importer, Fertilizer compounder
Company information*	Founded in 2002, the CU Agro AG produces fertilizers for Agroline. Because of their domestic production they are able to adapt the quality of their fertilizers in a short time if necessary. They have granulation capacity.
P-turnover*	300 - 1000 t/a

* According to the company interviews.

Company Name	**Hauert HBG Dünger AG**
Activity	Importer, Fertilizer compounder
Company information*	Hauert produces and retails its fertilizers for over 300 years. It is now the leader for gardening and turf fertilizers in Switzerland. They use less phosphorus for their fertilizers (~ 1 % P) compared to the agricultural fertilizers. Hauert also uses bone-meal as a phosphorus source for their fertilizers. Raw materials do not need to be granulated because Hauert has granulating facilities.
P-turnover*	100 - 300 t/a

Company Name	**LANDOR**
Activity	Importer, Fertilizer blender, Wholesaler
Company information*	Founded in 1982, Landor is now the biggest fertilizer importer of Switzerland and covers around 50 % of the market. They also have a big advice-group of about 15 people. They import bulk fertilizer and pack it. Landor has also a blending site to produce fertilizer blends. They sell fertilizer complex as well as bulk blends. Landor brings 80 % of their fertilizers directly to the farmers; the other 20 % are sold over Landi.
P-turnover*	1000 - 3000 t/a

* According to the company interviews.

Company Name	**LANDI REBA AG Aesch**
Activity	Retailer, Farmers Cooperation
Company information*	More than 80 % of the Swiss farmers are members of a local Landi cooperative. Landi Reba is one of the Landi cooperatives. The majority shareholder of Landi Reba is Fenaco with 2/3 of shares and the other 1/3 is held by local farmers. It has a transport and a storage business which acts as a short term stock and as a pick up possibility. They also sell turf fertilizer to private costumers and landscaping companies.

* According to the company interviews.

* According to the company interviews.

Company Name	**Omya Agro**
Activity	Importer, Wholesaler, Retailer
Company information*	Omya Agro has been active since 40 years in the Swiss fertilizer and plant protection market. The have 20 outside service workers for general advice (plant protection, fertilizer etc.). They offer a special product called Entec which has a delayed conversion from ammonium to nitrate. They only distribute complex fertilizers. Omya could use a P-recycling product in a highly concentrated and liquid form for plant protection.
P-turnover*	300 -1000

* According to the company interviews.

Company Name	**Opdebeeck SA**
Activity	Importer, Fertilizer blender, Wholesaler
Company information*	The company was founded in 1989. It blends mostly Russian (low Cd) DAP to NPK and sells it to retailers under the brand Exakt. The Swiss market has shrunk by 50 % since 1989, when still around 40 competitors were active. Ultra Brag is a strategic partner responsible for vessel unloading, blending and packing. They perceive little innovation and new products in the market. No unusual pressure from suppliers and customers, both are diversified. Opdebeeck SA is interested in recycled phosphorus to a competitive price, as long as Swiss market standards (916.171.1) in solubility and other usual specifications are fulfilled.
P-turnover*	300-1000

* According to the company interviews.

Company Name	**UFA-Samen**
Activity	Import, Retail
Company information*	UFA-Samen is a daughter company of Fenaco. They offer seeds for agriculture and gardening as well as fertilizers for gardening and landscaping. They buy finished products from abroad or from Switzerland. UFA-Samen distributes the fertilizers to the end-users.
P-turnover*	No info

Swiss fertilizer import statistic 2011 (Eidgenössische Zollverwaltung, 2012)

Zolltarif-Nr.	Bezeichnung	Verbrauchsstatistik 2011 in Tonnen				Verbrauchsstatistik 2010 in Tonnen				Veränderung 2011 gegenüber 2010 in Tonnen				in %
		effektiv	N	P2O5	K2O	effektiv	N	P2O5	K2O	effektiv	N	P2O5	K2O	effektiv
2814.2000.011	Ammoniakgas wasserfrei Lösung	1.05	0.22	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.22	0.00	0.00	100.00%
2834.2100.011	Kaliumnitrat	666.28	86.64	0.00	301.37	842.32	109.50	0.00	381.89	-176.04	-22.86	0.00	-80.52	-20.90%
2834.2900.011	Calcium-Magnesiumnitrat	287.88	38.22	0.00	0.00	174.04	24.76	0.00	0.00	113.84	13.46	0.00	0.00	65.41%
2835.2400.011	Kaliumphosphate	147.95	0.00	51.81	19.23	186.80	0.00	71.73	27.09	-38.85	0.00	-19.92	-7.86	-20.80%
2835.2900.011	Andere Phosphate	262.08	0.00	49.37	0.00	351.20	0.00	64.89	0.00	-89.12	0.00	-15.52	0.00	-25.38%
3102.1000.011	Harnstoff	12'360.05	5'656.45	0.00	0.00	16'372.45	7'501.46	0.00	0.00	-4'012.40	-1'845.01	0.00	0.00	-24.51%
3102.2100.011	Ammoniumsulfat	7'248.09	1'445.69	0.00	0.00	4'520.30	881.99	0.00	0.00	2'727.79	563.70	0.00	0.00	60.35%
3102.2900.011	Ammoniumsulfatsalpeter	5'436.11	1'413.69	0.00	0.00	12'861.12	3'159.83	0.00	0.00	-7'425.01	-1'746.14	0.00	0.00	-57.73%
3102.2900.013	Andere Doppelsalze und Mischungen	450.44	151.53	0.00	0.00	524.44	168.93	0.00	0.00	-74.00	-17.40	0.00	0.00	-14.11%
3102.3000.011	Ammoniumnitrat	52'100.70	13'851.92	0.00	0.00	61'478.92	16'269.05	0.00	0.00	-9'378.22	-2'417.13	0.00	0.00	-15.25%
3102.4000.011	Mischungen Ammoniumnitrat-Calciumcarbonat	49'153.18	13'029.94	0.00	0.00	42'009.05	11'238.58	0.00	0.00	7'144.13	1'791.36	0.00	0.00	17.01%
3102.6000.011	Doppelsalze und Mischungen	842.43	130.74	0.00	0.00	902.97	139.99	0.00	0.00	-60.54	-9.25	0.00	0.00	-6.70%
3102.7000.011	Calciumcyanamid (Kalkstickstoff)	1'978.40	391.32	0.00	0.00	1'736.70	343.73	0.00	0.00	241.70	47.59	0.00	0.00	13.92%
3102.8000.011	Mischungen von Harnstroff und Ammoniumnitrat	186.00	55.80	0.00	0.00	130.58	38.61	0.00	0.00	55.42	17.19	0.00	0.00	42.44%
3102.9010.011	Calciummagnesiumnitrat	827.40	33.09	0.00	0.00	669.48	27.70	0.00	0.00	157.92	5.39	0.00	0.00	23.59%
3102.9090.013	Andere Stickstoffdüngemittel	7'922.82	1'556.69	0.00	0.00	4'695.25	1'088.22	0.00	0.00	3'227.57	468.47	0.00	0.00	68.74%
3103.1000.011	Superphosphate	5'044.51	0.00	2'253.76	0.00	4'303.17	0.00	1'900.81	0.00	741.34	0.00	352.95	0.00	17.23%
3103.9000.021	Andere Phosphate wasserlöslich	606.94	0.00	114.06	0.00	779.37	0.00	150.37	0.00	-172.43	0.00	-36.31	0.00	-22.12%
3103.9000.022	Andere Phosphate nicht wasserlöslich	968.25	0.00	178.48	0.00	1'421.76	0.00	262.69	0.00	-453.51	0.00	-84.21	0.00	-31.90%
3104.1000.011	Nat. Rohe Kalisalze	364.02	0.00	0.00	40.04	386.10	0.00	0.00	49.78	-22.08	0.00	0.00	-9.74	-5.72%
3104.2000.011	Kaliumchlorid	10'723.35	0.00	0.00	6'337.98	13'506.58	0.00	0.00	7'968.63	-2'783.23	0.00	0.00	-1'630.65	-20.61%
3104.3000.011	Kaliumsulfat 50 % und andere	1'785.67	0.00	0.00	888.45	1'613.28	0.00	0.00	770.10	172.39	0.00	0.00	118.35	10.69%
3104.9000.011	Andere Kalidünger	3'310.96	0.00	0.00	1'091.37	3'263.04	0.00	0.00	1'085.01	47.92	0.00	0.00	6.36	1.47%
3105.2000.011	Mehrnährstoffdünger	55'748.61	6'307.45	4'019.30	8'536.93	52'693.12	6'610.72	4'319.99	9'044.55	3'055.49	-303.27	-300.69	-507.62	5.80%
3105.3000.011	Diammoniumorthophosphat	2'482.12	446.84	1'141.76	0.00	3'476.34	625.75	1'599.14	0.00	-994.22	-178.91	-457.38	0.00	-28.60%
3105.4000.011	Monoammoniumorthophosphat	2'191.67	435.00	251.80	0.00	953.94	221.07	-53.46	0.00	1'237.73	213.93	305.26	0.00	129.75%
3105.5100.011	Mehrnährstoffdünger N und P	84.30	17.79	17.49	0.00	590.21	153.25	42.11	0.00	-505.91	-135.46	-24.62	0.00	-85.72%
3105.5900.011	Andere Mehrnährstoffdünger	2'417.62	429.90	427.94	0.99	2'397.10	428.20	390.43	0.67	20.52	1.70	37.51	0.32	0.86%
3105.6000.011	Rohphosphat-Kali	3'318.53	0.00	385.87	814.58	3'997.98	0.00	480.23	984.88	-679.45	0.00	-94.36	-170.30	-16.99%
3105.6000.012	Thomasmehl-Kali	2'952.10	0.00	334.29	503.41	2'940.82	0.00	333.30	499.58	11.28	0.00	0.99	3.83	0.38%
3105.6000.013	Andere Rohphosphatdünger	1'950.15	0.00	379.20	45.57	2'345.40	0.00	454.86	74.25	-395.25	0.00	-75.66	-28.68	-16.85%
3105.6000.014	Andere Mehrnährstoffdünger PK	10'301.88	0.00	1'512.57	2'682.09	7'931.08	0.00	1'314.85	1'972.14	2'370.80	0.00	197.72	709.95	29.89%
3105.9000.013	Andere Dünger und a. Mehrnährstoffdünger	2'696.77	516.49	12.10	297.60	2'569.91	444.50	10.12	319.22	126.86	71.99	1.98	-21.62	4.94%
	Total	246'818.31	45'995.41	11'129.80	21'559.61	252'624.82	49'475.84	11'342.06	23'177.79	-5'807.56	-3'480.43	-212.26	-1'618.18	-2.30%