

ANNEX 7

Statistics for Germany

GERMANY

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GERMANY

Table 1: Arable Land - Cultivated area in Germany in 1000 ha

	Cereals including corn maize	Pulses	Root crops	Vegetables etc.	Comm. Crops 1	Feed crops	Arable land ²	Utilized agricultural area ³
Western Germany								
1970	5.184	30	1.261	82	117	839	7.539	13.578
1980	5.212	11	815	51	169	1.003	7.270	12.248
1985				n.a.			7.240	12.019
1988	4.734	95	656	65	438	1.215	7.255	11.915
Germany								
1990	7.006	122	1.275	149	919	2.271	11.982	18.032
1995	6.527	123	857	103	1.151	1.792	11.835	17.344
1996	6.707	149	875	104	1.050	1.862	11.832	17.335
1997	7.014	185	830	103	1.111	1.840	11.832	17.327
1998 ⁴	7.015	224	812	103	1.215	1.767	11.832	n.a.

¹ Oilseeds, hop, roots and grasses for seed production, pharmaceutical and spice crops

² including fallow land

³ until 1969 agricultural area; since 1970 utilized agricultural area

⁴ provisional

Source: Statistisches Jahrbuch über Ernährung, Landwirtschaft und Forsten der Bundesrepublik Deutschland 1998

Landwirtschaftsverlag Münster-Hiltrup

Table 2: Production areas, yields and production (Germany)

	Production area in 1000 ha				Ø-Yields in t/ha				Production in 1000 t			
	1994	1995	1996	1997	1994	1995	1996	1997	1994	1995	1996	1997
Food cereals	3.168	3.451	3.415	3.584	6,3	6,5	6,8	6,8	19.983	22.336	23.196	24.517
Feed and industrial cereals	2.722	2.751	2.920	3.070	5,1	5,5	6,2	5,8	13.900	15.133	16.027	17.830
Maize/ Corn-Cob-Mix	250/ 96	231/ 94	277/ 95	268/ 101	zus. 7,1	zus. 6,6	zus. 7,9	zus. 8,3	zus. 2.446	zus. 2.395	zus. 2.913	zus. 3.061
Potatoes	293	315	336	300	33,0	31,4	39,0	38,2	9.669	9.898	13.100	11.443
Sugar beets	500	513	516	504	48,4	50,8	53,4	51,3	24.211	26.049	26.064	25.864
Winter rapeseed	950	932	777	862	2,9	3,2	2,4	3,2	2.737	3.024	1.836	2.737

Source: Statistisches Jahrbuch über Ernährung, Landwirtschaft und Forsten der Bundesrepublik Deutschland 1997
Landwirtschaftsverlag Münster-Hiltrup

Table 3: Cultivation of industrial crops in Germany (ha)

Raw material	1995		1996		1997		1998*	
	base area	set aside area	base area	set aside area	base area	set aside area	base area	set aside area
Starch	130.000	2.700	135.000	62	138.000	0	140.000	0
Sugar	8.000	0	9.000	0	9.000	0	11.000	0
Rape oil	5.000	331.000	5.000	232.000	80.000	107.000	76.000	143.300
Sunflower oil	13.000	17.000	23.000	7.000	20.000	3.100	20.000	3.100
Linseed oil	54.000	3.250	86.000	1.350	96.000	675	95.000	440
Flax and hemp	3.370	10	6000	22	6.000	0	4.000	24
Medicinal crops	4.000	800	4.000	600	4.000	0	4.000	1600
Others	0	7.100	0	1000	0	1000	0	644
Subtotal base areas/set aside	217.370	361.860	268.000	242.034	353.000	111.775	350.000	149.108
Total cultivation	579.230		510.034		464.775		499.108	

* estimate

Source: Bundesministerium für Ernährung, Landwirtschaft und Forsten

Table 4a: Industrial crop species cultivated on set aside areas in ha

Annex I crops*	production area in ha for harvest					
	1993	1994	1995	1996	1997	1998
Whole crop cereals	541	748	717	284	112	123
Wheat	1.694	4.641	3.827	20	1	9
Rye	10	270	485	48	7	56
Oats	13	185	7	4	2	0
Maize	0	613	736	94	2	52
Silage maize						4
peas	17	1.466	2.727	0	0	0
Flax	9	20	10	1	4	2
linseed	1.895	4.755	3.269	1.290	659	443
00-Rapeseed	54.547	125.740	324.896	223.409	96.362	131.436
Erucic rapeseed	5.859	7.005	5.627	3.506	9.787	11.834
Sunflower	258	14.094	17.176	6.662	3.068	3.120
Euphorbia lathyris	32	88	66	0	0	0
Crambe	0	3	0	540	82	73
Camelina sativa	95	138	66	17	0	0
Lupin	6	0	0	109	0	0
Nasturtium	1	1	0	0	0	0
Milk thistle	354	457	409	0	0	0
Melilot	2	3	0	0	0	0
Ribwort plantain	7	2	0	0	0	3
Dandelion	1	1	0	0	0	0
Peppermint	0	1	0	0	0	0
Chamomile	328	462	457	515	716	759
Pot marigold	0	5	0	0	0	0
Valerian	13	1	0	0	0	0
Borage	0	9	7	0	0	0
Green oats	1	2	0	0	0	0
Coneflower	3	2	2	22	0	0
Foxglove	1	13	52	47	37	27
Golden rot	1	0	0	0	0	0
Artichoke	1	0	0	0	36	13
Perforated St. John's wort	4	2	2	5	50	124
Great celandine	1	0	0	3	0	0
Yarrow	1	0	0	0	0	1
Common balm	4	0	0	0	0	2
Clover	0	0	0	1	0	0
Hemp	0	0	0	23	17	22
Kenaf/Hibiscus	0	0	262	4	0	0
Perennial ryegrass	0	0	0	17	0	0
Fennel	0	0	0	0	4	2
Buckwheat	0	0	0	0	0	3
Weld	0	0	0	0	0	1
Total area	65.699	160.727	360.799	236.622	110.945	148.108
area in relation to previous year		245 %	224 %	66 %	47 %	133 %

Table 4b: Crop species cultivated on set aside areas in ha

Annex II crops*	Cultivation area in ha for harvest					
	1993	1994	1995	1996	1997	1998
Poplar	-	-	16	0	116	90
Willow	-	-	2	0	24	33
fast growing coppice	-	-	26	0	2	1
Miscanthus sinensis	8	-	235	0	198	177
Arundo donax	-	-	0	0	0	1
other C4 - grasses	-	-	0	0	0	0
Euphorbia lathyris	-	-	-	0	6	0
Milk thistle	-	-	-	0	20	698
Pot marigold	-	-	-	0	-	0
Woad	-	-	-	0	7	0
Total area	8	0	280	0	373	1.000

BLE (PR 61905) 1998 = as of 15 January 1999

* Cultivation under Council Regulation (EEC) 334/93; system under Title I or Title II.

Source: Bundesanstalt für Landwirtschaft und Ernährung und
Bundesministerium für Ernährung, Landwirtschaft und Forsten

Table 5: Chemical-technical utilization of renewable resources in Germany

raw material	quantity (1.000 t)	potential (1.000 t)	potential (1.000 ha)
starch (fy 96/97)	610	1.000	213
sugar (fy 96/97)	57	80	15
rapeseed oil as lubricant (97)	35	150	150
rapeseed oil in oleochemistry (97)	100	200	200
high erucic rapeseed oil (97)	20	30	30
linseed oil (97)	31	50	60
sunflower oil (97)	30	50	50
flax (93)	6	15	15

Source: Bericht des BML: 5 Jahre Nachwachsende Rohstoffe. Bonn 1998

Table 6: Final utilization of non-food crops on set aside areas

Final use	Area (ha) 1993	Area (ha) 1994	Area (ha) 1995	Area (ha) 1996	Area (ha) 1997
Pharmaceuticals	704	936	971	623	1.546
Aromatic oils	16	16	0	11	16
Biofuels	643	2.669	2.497	1.897	543
Insulation material	9	211	48	5	18
Fertilizer	25	11	19	109	109
Paints + Coatings	1.729	3.920	2.425	865	494
Fatty acid derivatives	-	5.375	4.473	9.541	10.466
Wood protectants	31	3	0	0	0
Liquid biofuel	50.464	100.105	253.574	169.863	66.817
Bioplastics	215	1.833	2.013	52	10
Linoleum	10	21	131	11	4
Paper	1.704	4.891	4.236	0	0
Lubricants	286	2.763	19.992	36.124	21.848
Technical Oils	10.088	37.241	68.881	22.040	10.450
Packaging material	17	725	1.443	55	3
Detergents	42	0	327	134	10
Cellulose halfstuff	0	0	278	34	0
Total	65.983	160.719	361.307	241.365	112.326

Source: Bericht des BML: 5 Jahre Nachwachsende Rohstoffe. Bonn 1998

Table 7: Chemical-technical utilization of oils and fats in Germany

	Germany	
	total (1.000 t)	vegetable oils (1.000 t)
1985	477	285
1986	598	416
1987	619	467
1988	616	429
1989	615	439
1990	852	580
1991	512	358
1992	585	409
1993*	346	178
1994	641	536
1995	435	329
1996	428	323
1997	567	442

* due to the creation of the Single European Market, statistics can not be compared with previous years

Source: Statistisches Jahrbuch über Ernährung, Landwirtschaft und Forsten der Bundesrepublik Deutschland, different issues, Landwirtschaftsverlag Münster-Hiltrup

Table 8: Repartition of the insulation material market in Germany 1996
total: 30,7 Mio m³

Mineral wool	59%
EPS hardfoam	28%
Others (natural etc.)	4 %
PUR hardfoam	4%
PS Extruder foam	3%
Lightweight boards	1%

Source: CMA (1998): Dämmstoffe aus der heimischen Natur

Table 9: Natural insulation material
Share of total insulation material market: 4,1%

Cellulose	0,95 %
soft wood fibre boards	0,63 %
Wool	0,22 %
Cotton	0,19 %
Cork	0,10 %
Flax/hemp	0,10 %
Reed, straw, coconut fibres	0,02 %
Perlite	1,27 %
Foam glas	0,57 %

Source: CMA (1998): Dämmstoffe aus der heimischen Natur

Table 10: Sugar balance of Germany (1000 t White Sugar (WW))

	sugar farm year (october/september)						97/98 provisional	98/99 estimated
	92/93	93/94	94/95	95/96	96/97			
start supplies	311	328	469	250	240	287	268	
production ¹	4.049	4.357	3.672	3.826	4.203	4.034	4.035	
import ²	142	131	167	140	100	103	100	
export ²	1.479	1.642	1.303	1.147	1.409	1.326	1.250	
consumption total	2.695	2.705	2.755	2.829	2.847	2.830	2.830	
chemical industry ³	47	74	62	66	60	70	70	

1 including production from imported beets and molasses

2 without sugar containing products

3 supply by sugar industry, importers, wholesale trade, with production refund

Source: Agrarwirtschaft 48 (1999), Issue 1

Table 11: Utilization of sugar with production refunds

financial year	Germany
1985/86	20.865 t
1986/87	4.196 t
1987/88	20.081 t
1988/89	28.488 t
1989/90	31.960 t
1990/91	28.924 t
1991/92	49.799 t
1992/93	45.028 t
1993/94	71.511 t
1994/95	58.954 t
1995/96	63.148 t
1996/97	56.833 t

Since 1990/91 territory of Germany from 03.10.1990

Source: Bericht des Bundes und der Länder über Nachwachsende Rohstoffe 1995
Bericht des BML 5 Jahre Nachwachsende Rohstoffe 1993 - 1997

Table 12: Non-food consumption of starch with production refunds in Germany

financial year	Germany
1986/87	407.800 t*
1987/88	407.800 t*
1988/89	506.000 t
1989/90	478.445 t
1990/91	490.701 t
1991/92	513.218 t
1992/93	531.725 t
1993/94	521.699 t
1994/95	561.519 t
1995/96	519.361 t ^o
1996/97	370.728 t ^o

* average of the financial year 1986/87 and 1987/88

^o as production refunds were very low, starch has been processed without refunds
1990/91 territory of Germany from 03.10.1990

Source: Bericht des Bundes und der Länder über Nachwachsende Rohstoffe 1995
Bericht des BML 5 Jahre Nachwachsende Rohstoffe 1993 - 1997