1993/94

HOPS

Joh. Barth & Sohn

Conversion Table

1 ha	= 2.934 bayerische Tagwerk
1 ha	= 2.471 acres
1 bayerisches Tagwerk	= 0.341 ha
1 acre	= 0.405 ha
1 yard	= 3 feet = 36 inches = 91.44 cm
1 hl = 100 l	= 26.42 gall = 0.8523 bbl (USA)
	= 22.01 gall = 0.6114 bbl (Brit.)
1 bbl (USA)	= 31 gall = 1.1734 hl
1 bbl (Brit.)	= 36 gall = 1.6365 hl
1 metr. ton = 1,000 kg	= 20 Ztr. = 2,204.6 lbs
1 Ztr. = 50 kg	= 110.23 lbs = 1.102 cwt (USA)
	= 110.23 lbs = 0.984 cwt (Brit.)
1 cwt (USA)	= 100 lbs = 45.359 kg
1 cwt (Brit.)	= 112 lbs = 50.800 kg
1 cental (Brit.) = 100 lbs	= 45.359 kg = 0.9072 Ztr.
1 kg	= 2.20462 lbs
1lb	= 0.45359 kg

Conversion of temperatures
from degrees Fahrenheit into degrees Celsius

$$86\ °F = \frac{(86-32) \cdot 5}{9} = 30\ °C$$

from degrees Celsius into degrees Fahrenheit

$$30\ °C = \frac{30 \cdot 9}{5} +32 = 86\ °F$$

Currency Exchange Table

as of June 30, 1993 and June 30, 1994

Düsseldorf Exchange Market	Spot Rate Selling Rate 1993	Selling Rate 1994	Buying Rate 1993	Buying Rate 1994
USA[1)]	1.6842	1.5914	1.6922	1.5994
Great Britain[1)]	2.5410	2.4495	2.5550	2.4635
Canada[1)]	1.3158	1.1488	1.3238	1.1578
Netherlands	89.055	89.053	89.275	89.273
Switzerland	112.600	118.576	112.800	118.776
Belgium	4.8560	4.8445	4.8760	4.8645
France	29.575	29.127	29.735	29.227
Denmark	25.950	25.410	26.070	25.530
Norway	23.600	22.875	23.720	22.995
Sweden	21.870	20.653	22.030	20.773
Italy[2)]	1.0955	1.0026	1.1055	1.0106
Austria	14.190	14.195	14.230	14.236
Spain	1.3040	1.2082	1.3140	1.2162
Portugal	1.0410	0.9690	1.0610	0.8750
Japan	1.5970	1.6093	1.6000	1.6123
Finland	29.730	29.910	29.930	30.070

Unofficial dealings

Australia[1)]	1.1210	1.1620	1.1330	1.1700
New Zealand[1)]	0.9030	0.9470	0.9150	0.0550
Poland[2)]	-	-	0.0974	0.0770
Czech Republic[2)]	5.6700	5.6400	5.7700	5.6300

These rates are only given for the purpose of information.
They differ from bank to bank and are not binding

[1)]= 1 unit, [2)] = 1,000 units, all other = 100 units

Table of Contents

The world market's key data

	1993	1992	Diff. %
Acreage/ha	**91,596**	**91,835**	**- 0.4**
Hop production/tons	**137,417**	**122,379**	**+ 12.3**
Alpha production/tons	**9,097**	**7,537**	**+ 20.7**
Beer production/1,000 hl	**1,188,619**	**1,163,208**	**+ 2.2**

Nuremberg, July 1994

Joh. Barth&Sohn

Glockenhofstraße 24-26 · D-90478 Nürnberg
P.O.B. 1227 · D-90002 Nürnberg
Phone: (09 11) 47 44-0 · Telex: 6 22 030
Telefax (09 11) 47 44-47

Political Situation

Even during the last year, armed conflicts and local trouble spots could not be prevented - in spite of operations and missions under the **UN's** responsibility that partly were of supranational nature. But there also were some positive developments:

General elections with equal rights for all parts of the population were held in **South Africa**, from which **Nelson Mandela** emerged as the **first black President** with 60 % of the votes cast.

In a treaty between **Israel** and the **PLO (Palestine Liberation Organization)**, the **Palestinians** were granted **partial autonomy** for **Gaza** and the city of **Jericho.**

Up to now, the international community has tried in vain to put an end to the civil war in **Bosnia and Herzegovina.**

Islamic fundamentalists continued their terrorist actions against the state authorities of **Algeria** and **Egypt**. To an increasing extent, tourists and foreigners in these countries fall victim to such actions.

In **Somalia**, the international **UN troops** could not yet reconcile the hostile groups.

Sudden **genocide** with ethnic background in Central African **Rwanda** also required a **UN** mission to protect the civilians.

The area of the former **Soviet Union** did not yet come to rest either. Due to the action of government troops, an **attempted putsch** of nationalist circles against the Russian President failed in October 1993. In some of the succession states, struggles for power and ethnic conflicts continue as well.

Economic Situation

Recession dominated world economy in 1993. Real growth was only 1 %. In the **United States**, however, a slow recovery could be noted. Some other major industrial countries like **Japan** and **Germany**, also seem to have passed the **bottom of recession**. An exception is the world's largest country, **China**, that stills enjoys unbroken catch-up business activities.

In December 1993, after long and difficult negotiations, a new **GATT agreement** professing the principle of free world trade was signed by 117 nations in **Uruguay**.

An important contribution to the development of large, duty-free trade areas was the ratification of the **NAFTA agreement (North American Free Trade Agreement)** by the Congress of the U.S.A., the last participating state, on January 10, 1994. This agreement provides the gradual abolishment of tariffs and other trade barriers in **Canada**, **Mexico** and **USA** within 15 years.

In the **European Community** those countries still hesitating, namely **England** and **Denmark**, adopted the **Maastricht** resolutions by **decision of the parliament** and **referendum**, respectively, after having achieved some modifications of the original text.

Economic reform in the countries of Eastern Europe and the former **Soviet Union** progresses with difficulties, involving considerable sacrifices of the persons concerned.

Economic recovery in East Germany proves to be much more lengthy than initially expected and is even more delayed by the present recession. In 1993, West Germany paid DEM 160 billion to the Eastern parts of the country to finance the unification. For 1995, it is planned to reintroduce **solidarity aid**, a special surcharge on the income tax.

In the international financial market, a weakness of the **US dollar** can be noted. At the same time, the Japanese, Swiss and German currencies are getting stronger. For various European currencies, central bank interventions became necessary to defend the lower currency band.

The key 1993 economic data for the **USA** and the **Federal Republic of Germany**

Key data	USA	Germany
Gross national product	+ 3 %	+ 1 %
Balance of trade	USD - 115.6 billion	DEM + 59.1 billion (former Eastern and Western Germany)
Balance of current acct.	USD - 103.9 billion	DEM - 55.0 billion
Inflation rate	2.7 %	+ 4.0 %
Interest rate	7.25 % (prime rate)	5.0 % (Federal Bank discount rate p. 15.4.94)
Unemployment rate on December 31, 1993	6.7 %	8.8%

Table of Bitter Constituents

In 1993, the bitter values of the most important varieties were:

Variety	1993	1992
Hallertau Hallertau	4.2	3.9
Hallertau Hersbruck	3.4	2.3
Hallertau Hüll	5.6	4.8
Hallertau Perle	7.0	5.0
Hallertau Record	6.1	4.5
Hallertau Northern Brewer	8.4	7.3
Hallertau Brewers Gold	6.5	5.8
Hallertau Orion	7.4	5.8
Tettnang	4.0	3.6
Spalt	4.1	3.5
Saaz	3.4	2.8

The values are in % as is according to Woellmer (extraction with ether).

The values were measured in October/November after the harvest. For deliveries in the later course of the season reductions have to be taken into account.

The bitter values of other important varieties are listed in the respective country report.

World Beer Production 1992/93

Specification in 1,000 hl

EUROPE

Country	1993	1992
FRG	116,000 [1]	120,172 [1]
Great Britain	54,881	55,887
C.I.S.	-	50,000
Federation of Russia	24,500	-
Ukraine	14,000	-
White Russia	3,000	-
Kasachstan	2,600	-
Remaining countries of former Soviet Union	5,000 [4]	-
Spain	24,300	25,800
Netherlands	20,431	20,659
Czechoslovakia	-	23,382
Czech Republic	19,000	-
Slovak Republic	3,000	-
France	18,291 [2]	18,512 [2]
Belgium	14,000 [3]	14,259
Poland	14,000	14,100
Italy	11,715	10,923
Austria	9,870	10,014
Romania	9,000	9,000
Denmark	8,400	8,410
Hungary	8,000	9,160
Ireland	7,000	7,100
Portugal	6,800	6,893
Sweden	5,540	5,470
Bulgaria	5,000 [4]	6,000
Yugoslavia	5,000	5,000
Finland	4,377	4,457
Greece	4,100	4,100
Switzerland	3,866	4,090
Croatia	2,500	unknown [5]
Norway	2,135	2,181
Slovenia	2,000	2,000
Lithuania	1,500	1,565
Latvia	800	800
Luxemburg	558	569
Estonia	500	500
Malta	180	170
Iceland	69	61
TOTAL	431,913	441,234

1) due to a change of the German beer tax law, a comparison with the production of the year before is not possible
2) other sources: 21,300 for 1992 and 20,833 for 1993
3) no figures are available anymore
4) brewing year 1. 10. - 30. 9.
5) probably 2,500 as well

Far East

Country	1993	1992
People's Rep. of China	120.000	90,000 [1]
Japan	68.960	69,683
Rep. of Korea	15.270	14,779
Philippines	13.500*	14,000
Taiwan	4.633	4,416
India	4.600	2.250
Thailand	4.200	3,330
Vietnam	2.300	2,500 [2]
Hong Kong	1.500*	1,400
Indonesia	1.278	942
D.P. Rep. Korea	1.000*	1,000
Malaysia	995	1.255
Singapore	653	671
Nepal	150*	120
Sri Lanka	102	95
Iran	100**	100**
Mongolia	100*	100
Laos	30*	30
Burma	21*	40
Cambodia	10*	10
Pakistan	10*	10
Bangladesh	5*	5
TOTAL	239,417	206,717

1) possibly above 100,000 in 1992 as well
2) possibly less in 1992 as well

AMERICA

Country	1993	1992
USA	237,306	237,174
Brazil	57,000*	57,300
Mexico	43,794 [2]	42,168
Canada	22,999	21,570
Colombia	16,500	16,500
Venezuela	15,500	15,900
Argentina	10,305	9,500
Peru	6,000	6,800
Chile	4,100 [1]	3,500
Cuba	3,200	3,900
Ecuador	2,150	2,200
Dominican Republic	2,000	2,400
Paraguay	1,700	1,740
Bolivia	1,350	1,600
Panama	1,200	1,150
Guatemala	1,100	1,200
Costa Rica	950*	800
Honduras	942	770
Jamaica	847	750
Uruguay	815	800
Puerto Rico	700	760
El Salvador	700	700
Nicaragua	500	620
Trinidad	350	500
Netherl. Antilles	161	167
Haiti	120	132
Guyana	120	128
Surinam	120 [2]	120
Barbados	115	92
San Lucia	102	86
Bahamas	90	90
Belize	85	60
Martinique	58	65
Grenada	30	28
St. Vincent	25	24
Guadeloupe	20	-
St. Kitts	13	45
TOTAL	432,947	431,287

1) other sources: 3,300
2) no official data is available at present

AUSTRALIA/ OCEANIA

Country	1993	1992
Australia	18,051	18,623
New Zealand	3,595	3,597
Papua New Guinea	390	428
Fiji Islands	150	230
Tahiti	128	122
New Caledonia	97	66
Samoa	55	60
Vanuatu	9	10
Salomon Islands	17	30
TOTAL	22,492	23,166

AFRICA

Country	1993	1992
South Africa	22,500	22,500
Nigeria	6,700	6,500
Cameroon	3,672	4,185
Kenya	2,700	3,600
Zaire	2,028	1,580
Zimbabwe	1,560	1,800
Burundi	1,216	1,151
Rwanda	1,041	1,042
Gabon	905	800
Ethiopia	810	445
Ivory Coast	701	953
Zambia	700	900
Namibia	625	590
Morocco	600	700
Tunesien	600	356
Algeria	550	300
Ghana	500*	632
Tanzania	500	550
Egypt	450	600
Botswana	434	450
Angola	418	901
Lesotho	351	330
Burkina Faso	337	359
Benin	333	318
Moçambique	315	359
Togo	286	432
Mauritius	276	320
People's Rep. of Congo	261	316
Central African Republic	231	314
Madagascar	228	225
Uganda	215	236
Swaziland	205	172
Eritrea	179	-
Reunion	175	177
Senegal	131	137
Chad	118	128
Malawi	100*	100*
Guinea	98	96
Niger	88	93
Liberia	50	58
Yemen	50*	50
Seychelles	46	68
Mali	41	45
Sierra Leone	39	54
Guinea Bissau	20*	20
Gambia	16	18
TOTAL	53,399	54,942

Near East

Country	1993	1992
Turkey	7,300	4,750
Israel	500	450
Cyprus	334	362
Iraq	100	100
Syria	90	90
Lebanon	87	30
Jordan	40	40
TOTAL	8,451	5,822

* estimated
** nonalcoholic

	1993	1992
WORLD	**1,188,619**	**1,163,208**

Output development

In the different continents production experienced the following changes (in 1,000 hl):

	1993 % rel.	**1992** % rel.	**1993** total	**1992** total	+ / - total
Europe	- 2.1	- 1.1	431,913	441,234	- 9,321
America	+ 0.4	- 1.4	432,947	431,338	+ 1,608
Africa	- 2.9	- 6.4	53,399	54,960	- 1,561
Asia (Far East)	+ 15.9	+ 5.7	239,417	206,717	+ 32,700
Near East	+ 45.2	+ 39.9	8,451	5,822	+ 2,629
Australia/Oceania	- 2.8	- 2.0	22,492	23,136	- 644
Total	+ 2.2	+ 0.2	1,188,619	1,163,208	+ 25,411

The world beer statistics show an increase of 2.2 %. A more detailed analysis shows, however, that due to the recession, beer output stagnated or even decreased in most countries. There are only few countries to report an increase in output.

The **People`s Republic of China** in particular contributed to the increase in world beer production. At present this country is second in the list of beer producing countries.

Market Analysis

While world acreage was about the same than in the previous year, the amount harvested was 13 % higher than that of the 1992 crop. The alpha acid yield was even 21 % higher than that of 1992. This situation is opposite to the stagnating world beer production and slightly decreasing hopping rate.

Thus, it could not be surprising that the market in general has been weak. Spot prices were far below production costs. Depending on varieties and individual markets, different situations occured though. For example, it was noted that finest aroma hops (such as **Saaz** and **Tettnang**) survived the last hop year best, that all in all was disappointing.

For the US hop production, the low spot prices were not that hard, since over 90 % of the 1993 US harvest were sold by contracts at satisfying prices. German hop farmers, on the contrary, had to accept considerable income losses, since the 1993 crop was 48 % higher than in the previous year. Important amounts of hops were available on the spot market, especially in the **Hallertau** area. A certain part could be sold at very low prices only, serving the breweries to build up inventories. The future hop market will therefore be put under a certain pressure.

Furthermore, it can be observed that hop farmers in several important hop-growing countries change to new varieties offering higher yields and bitter values. During the last years, the **European Community** partly supported such programmes within the scope of subsidies granted to hop farmers. All such measures surely help to achieve higher yields and more alpha acids on the same acreage.

Since an increase of the world hop need is not to be expected, it is in the farmers' own interest to face reality and to adjust their areas under cultivation accordingly.

According to the report of the EEC commission, the quotes for existing contracts in the major hop-growing countries can be estimated as follows, based on the present area under cultivation and a normal average yield in %:

For the major hop-growing countries, we estimate the contract quote of the coming years to be as follows (based on the present acreage, in %):

Country	1994	1995	1996	1997
Germany*	60	40	20	20
U.S.A.*	85	70	30	20
Czech Republic*	60	50	40	40
United Kingdom	60	40	10	10
Slovenia	50	40	30	10

* In comparison with the actual amounts harvested, contract quotes might be slightly higher due to the reduced yields in the U.S. and Europe that are beginning to show.

Acreage and Hop Production

Area	1993 acreage in ha	1993 Øtons per ha	1993 crop in to = 1000 kg	1992 acreage in ha	1992 Øtons per ha	1992 crop in to = 1000 kg
Hallertau	18,740	1.94	36,301.1	18,519	1.28	23,702.4
Spalt	776	1.40	1,085.0	807	1.13	911.9
Hersbruck	117	1.30	152.4	113	1.42	160.0
Tettnang	1,580	1.36	2,144.2	1,552	1.22	1,886.0
Elbe-Saale	1,781	1.53	2,715.8	1,924	1.06	2,036.5
Others	23	1.28	29.5	23	1.23	28.3
Fed. Rep. of Germany	**23,017**	**1.84**	**42,428.0**	**22,938**	**1.25**	**28,725.1**
England	**3,300**	**1.65**	**5,448.0**	**3,396**	**1.42**	**4,820.0**
Belgium	**410**	**1.42**	**585.3**	**395**	**1.54**	**609.2**
Alsace	604	1.67	1,009.1	578	1.47	852.2
Nord	67	0.92	61.8	62	1.00	62.0
Burgundy	2	0.80	1.6	2	1.45	2.9
France	**673**	**1.59**	**1,072.5**	**642**	**1.43**	**917.1**
Ireland	**13**	**1.46**	**19.0**	**12**	**1.73**	**20.8**
Spain	**1,194**	**1.68**	**2,108.6**	**1,370**	**0.94**	**1,280.9**
Portugal	**93**	**2.15**	**200.0**	**10**	**0.21**	**2.1**
EEC	**28,700**	**1.81**	**51,861.4**	**28,763**	**1.27**	**36,375.2**
Saaz	7,500	1.09	6,904.0	7,368	0.77	5,680.0
Auscha	1,800	1.03	1,848.0	1,764	0.97	1,717.0
Tirschitz (Moravia)	1,100	0.81	885.0	1,153	0.99	1,139.0
Rep. of Czechoslovakia	**10,400**	**0.93**	**9,637,0**	-	-	-
Rep. of Slovakia	**1,200**	**0.90**	**1,080.0**	**1,379**	**0.86**	**1,179.0**
Czechoslovakia	-	-	-	**11,664**	**0.83**	**9,715.0**
Ukraine	6,560	0.69	3,464.0	6,692	0.94	6,256.3
Republic of Russia[1])	3,574	1.03	3,646.0	4,675	0.86	4,000.0
Republic of White Russia		no figures available			no figures available	
CIS (former USSR)	**10,107**	**0.70**	**7,110.0**	**11,367**	**0.91**	**10,256.3**
Slovenia	**2,450**	**1.43**	**3,500.0**	**2,384**	**1.54**	**3,675.4**
Serbia (former Bačka and Ilok)	**560**	**1.50**	**840.6**	**556**	**0.81**	**450.0**
Poland	**2,391**	**1.20**	**2,872.0**	**2,262**	**1.12**	**2,534.2**
Bulgaria	**695**	**0.86**	**595.3**	**903**	**0.85**	**764.2**
Romania	**3,100**	**0.94**	**2,900.0**	**2,350**	**1.20**	**2,820.0**
Hungary	**141**	**1.31**	**184.8**	**288**	**1.18**	**341.0**
Mühlviertel	116	1.67	193.3	110	1.40	153.7
Leutschach	95	1.45	137.0	85	1.29	110.0
Waldviertel	10	1.05	10.5	11	0.68	7.5
Austria	**221**	**1.54**	**341.2**	**206**	**1.32**	**271.2**
Switzerland	**23**	**2.35**	**50.0**	**23**	**1.74**	**40.0**
Albania		hop cultivation was given up			no figures available	
EUROPE	**59,988**	**1.34**	**80,972.3**	**60,766**	**1.11**	**67,242.5**
Washington	12,651	2.11	26,693.0	12,298	2.11	25,903.0
Oregon	3,200	1.68	5,375.0	3,200	1.66	5,300.0
Idaho	1,604	1.54	2,470.0	1,620	1.55	2,516.0
USA	**17,455**	**1.98**	**34,538.0**	**17,118**	**1.97**	**33,719.0**
Canada	**328**	**0.83**	**271.7**	**328**	**0.62**	**203.4**
Japan	**614**	**1.73**	**1,065.0**	**660**	**1.92**	**1,270.1**
Australia	**1,178**	**2.50**	**2,941.0**	**1,155**	**2.70**	**3,113.0**
New Zealand	**270**	**2.33**	**630.0**	**262**	**2.24**	**587.4**
People's Rep. of China	**8,000*)**	**1.69**	**13,500.0**	**8,000**	**1.63**	**13,000.0**
Dem. People's Rep. of North Korea *	**2,000**	**0.60**	**1,200.0**	**2,000**	**0.60**	**1,200.0**
Republic of Korea	**100**	**0.51**	**51.0**	**144**	**0.50**	**72.0**
Republic of South Africa	**732**	**1.78**	**1,300.0**	**650**	**1.82**	**1,180.0**
Turkey	**300*)**	**0.60**	**180.0*)**	**283**	**0.58**	**163.0**
Argentina	**350**	**1.46**	**510.0**	**350**	**1.46**	**510.0**
India	**125**	**0.36**	**45.5**	-	-	-
Zimbabwe	**156**	**1.35**	**211.5**	**119**	**1.00**	**119.0**
WORLD	**91,596**	**1.51**	**137,416.5**	**91,835**	**1.33**	**122,379.4**

1) Scattered hop cultivation included

*) estimated

Alpha Acid Production

Alpha acid production on the world market was determined on the basis of the following groups of varieties:

Group A: Finest aroma hops such as Saaz, Tettnang, Spalt

Group B: Aroma hops such as Hallertau, Hersbruck, Hüll, Perle, Golding, Fuggle, Cascade and others

Group C: Hop varieties without significance for the world market

Group D: Bitter hops such as Northern Brewer, Brewers Gold, Cluster, Bullion, Pride of Ringwood, high-alpha hops from the USA and the UK

When grouping world hop production in this way the following alpha production results for 1993 which compares to the previous year's as follows:

	1993				**1992**			
Group	share %	crop tons	α % ⌀	α tons	share %	crop tons	α % ⌀	α tons
A	5.5	13,950	3.6	500	5.4	12,000.0	3.39	407
B	23.0	41,800	5.0	2,090	18.3	31,339.0	4.40	1,380
C	18.7	32,615	5.2	1,700	23.2	33,564.5	5.21	1,750
D	52.8	49,052	9.8	4,807	53.1	45,914.5	8.71	4,000
Total	100.0	137,417	6.6	9,097	100.0	122,818.0	6.14	7,537

The higher world harvest, which was 13 % above the previous year's, resulted in an increase in alpha acid production of about 20 %. The increased average bitter value of the world hop crop, which grew from 6.1 % in 1992 to 6.6 % in 1993 reflects the excellent hop quality in Europe, in Germany in particular, but also the increased cultivation of bitter varieties.

Alpha Acid Balance

For the first time since the existence of this report section, acid production passed the 9,000 tons line. At the same time, the world beer market is stagnant and the breweries continue reducing their average hopping rates.

The brewing industry quickly bought the world market surplus of the 1993 crop to rebuild hop inventories, although at prices that were disappointing for the farmers.

1991 hop demand 7,924.4 tons α
(hopping rate 6,864.0 tons α
6.8 g α/hl) 1,060.4 tons α
1990 production
Deficit

1992 hop demand
(hopping rate
6.8 g α/hl) 7,910.0 tons α
1991 production 8,612.0 tons α
Surplus 702.0 tons α

1993 hop demand
(hopping rate
6.7 g α/hl) 7,964.0 tons α
1992 production 7,537.0 tons α
Deficit 427.0 tons α

1994 hop demand
(estimated hopping rate
6.6 g α/hl) 7,850.0 tons α
1993 production 9,097.0 tons α
Surplus 1,247.0 tons α

European Community

In the course of the 1993/94 hop season, the **Commission of the European Community** laid down some regulations and made some decisions that are important for the hop market:

Regulation (EEC) No. 2916/93 of October 22, 1993, to modify regulation (EEC) No. 2529/93 "to determine the subsidies in ECU stipulated by the Council that are reduced as a result of the currency realignment".

Regulation (EEC) No. 29128/93 of the Commission of October 22, 1993, to modify regulation (EEC) No. 3076/78 regarding the import of hops from non-EC states. This regulation stipulates that hops to be imported from non-EC states that do not satisfy the minimum commercial requirements, must not be merchandised in the states of the European Community.

Decision of the Commission of December 10, 1993, approving the programme for variety changes that was presented and modified by the **Federal Republic of Germany.**

Decision of the Commission of April 20, 1993, approving the supplementary programme for variety changes as per regulation No. 2998/78 that was presented by **Belgium.**

Regulation (EEC) No. 1987/93 regarding a modification of hop certification. The new regulation includes isomerized hop products into the certification process. In addition, hop farmers of the former **GDR** are granted a transitional period to adjust the handling of their harvest to the EEC certification process.

As regards the adjustment of the commercialization of German hops according to the modified hop market regulations (regulation (EEC) No. 3124/92 of October 26, 1992 - also see our report "Hops 1992/93", page 6 -), no agreement on a practicable market model for future commercialization has been reached with the **European Commission.** The purpose of a modified future commercialization process is to avoid reductions or cuts of the subsidies granted to German farmers.

A common draft of the **German Grower Association** and the **Hop Merchant Association** was rejected by the **Commission of the European Community** on August 12, 1993, on the grounds that it would "not comply with the new regulation".

The draft of the German hop trade mainly provided "to grant the Producer Association a right of preemption over the merchants that depends on certain price limits", which should be handled by a neutral clearing office.

1992 Producer Subsidies

The subsidies for the 1992 harvest were stipulated as per Regulation (EEC) No. 1991/93 as follows:

Variety group	Subsidy in ECU		
Aroma hops	365 ECU	=	DEM 860.00
Bitter hops	400 ECU	=	DEM 940.00
Others / trial lines	280 ECU	=	DEM 660.00

As per regulation (EEC) No. 3124/92, 4 % of the subsidies paid to German farmers are retained. In addition, further 15 % must be withheld by the Producer Association for measures as per article 1, section 1Bc of the regulation (EEC) No. 1351/72.

Federal Republic of Germany

Growth

The German hop crop was characterized by excellent growing conditions during the whole vegetation period.

After a rather dry summer, the winter 1992/93 brought sufficient precipitation. The water supply needed for the 1993 vegetation period was thus guaranteed. The winter was rather long. In early April, temperatures were still below freezing point which delayed plant growth. It was only in late April that temperatures increased. At this time, growth was considered "as one week earlier than usual".

May and June brought cool and rainy as well as long midsummerlike and dry spells. Optimum conditions in July and August, mainly warm temperatures and sufficient rainfall, had a positive effect on the crop with regard to both quantity and bitter values.

Area	Official estimates in 1993 (tons)	Preliminary actual weight as of April 30, 1994 (tons)
Hallertau	31,150	36,301
Spalt	985	2,144
Tettnang	2,060	1,085
Hersbruck	150	152
Baden/Bitburg/Rheinpfalz	29	30
Elbe-Saale	2,375	2,716
Total	**36,749**	**42,428**

Shortly after harvest, it became clear that the high estimates for the German growing regions would even be exceeded. On October 1, 1993, the **German Producer Association** reported that "from the current yield reports there is every reason to believe that due to optimal weather the overall German crop will exceed the estimates that the official evaluation committee made in week 33".

Compared to the previous year, the amount harvested is 48 % higher. The post-war record with 37,012 tons and an average yield of 2.17 tons/ha (1993: 1.94 tons/ha) that was achieved in the Hallertau in 1982, was not reached though.

Extension of the Weighing Period

An extension of the weighing period of the German hop market until May 31, 1994, was applied for to the **Commission of the European Community.** Since the Commission agreed, the weighing period for hops of the 1993 harvest was extended to May 31, 1994. The tables listed in the section **"Federal Republic of Germany"** therefore only include provisional figures.

Varieties

In the German hop districts the following varieties were cultivated and produced the following crop quantities:

Area	Variety	ha	⌀ yield/tons	crop quantitiy/tons preliminary
Hallertau	Hallertauer	188	1.26	237.5
	Hersbrucker	6,303	1.96	12,324.8
	Hüller	321	1.98	636.8
	Perle	3,316	2.19	7,262.3
	Select	835	1.58	1,317.5
	Tradition	538	1.34	718.9
	Northern Brewer	4,159	1.81	7,519.2
	Brewers Gold	1,544	2.68	4,139.3
	Orion	126	2.29	289.9
	Nugget	328	2.15	704.5
	Target	90	1.55	139.4
	Magnum	827	0.88	725.8
	Record	137	1.71	234.0
	Others	28	1.87	52.3
Spalt	Hallertauer	263	1.09	285.6
	Spalter	203	0.97	197.7
	Hersbrucker	156	2.03	316.4
	Perle	34	2.05	69.6
	Select	106	1.84	195.3
	Others	14	1.46	20.5
Hersbruck	Hallertauer	34	1.02	34.7
	Hersbrucker	43	1.67	71.8
	Others	40	1.15	46.0
Tettnang	Hallertauer	564	1.50	846.8
	Tettnanger	1,012	1.28	1,292.4
	Others	4	1.38	5.5
Elbe-Saale	Perle	32	0.68	21.8
	Select	5	0.50	2.5
	Saazer	9	1.07	9.7
	Northern Brewer	1,504	1.65	2,476.1
	Nugget	37	0.80	29.6
	Bullion	99	1.42	140.5
	Others	95	0.38	35.7
Remainder		23	1.28	29.5

Acreage Development

In comparison with last year, the acreage (in ha) for the major varieties showed the following changes:

Variety	1993	1992	+/-
Hallertauer	1,053	1,079	- 26
Hersbrucker	6,509	7,049	- 540
Perle	3,397	3,237	+ 160
Select	963	583	+ 380
Tradition	551	267	+ 284
Spalter	210	224	- 14
Tettnanger	1,021	1,050	- 29
Northern Brewer	5,670	6,323	- 653
Brewers Gold	1,556	1,656	- 100
Nugget	365	221	+ 144
Target	92	77	+ 15
Magnum	918	341	+ 577
Bullion	99	134	- 35

The weighing period in Germany ended on May 31, 1994.
The final crop amounted to 42,468 tons which is made up as follows:

Hallertau . . . . 36,327 tons
Spalt . . . . 1,093 tons
Tettnang . . . . 2,144 tons
Hersbruck . . . . 158 tons
Elbe-Saale . . . . 2,716 tons
Remaining areas . . . . . . 30 tons

Federal Republic of Germany
Acreage

The following acreage development resulted in the Federal **Republic of Germany**:

Area	Acreage development			Aroma varieties							
	1993 (ha)	+/- (ha)	1992 (ha)	Hallertauer (ha)	Hersbrucker (ha)	Hüller (ha)	Perle (ha)	Select (ha)	Tradition (ha)	Spalter (ha)	Tettnanger (ha)
Hallertau	18,740	+ 221	18,519	188	6,303	321	3,316	835	538	7	3
Spalt	776	- 31	807	263	156	-	34	106	7	203	-
Hersbruck	117	+ 4	113	34	43	-	10	17	5	-	-
Tettnang	1,580	+ 28	1,552	564	4	-	-	-	-	-	1,012
Elbe-Saale	1,781	- 143	1,924	-	3	-	32	5	1	-	-
Others	23	-	23	4	-	2	5	-	-	-	6
FRG total	**23,017**	**+ 79**	**22,938**	**1,053**	**6,509**	**323**	**3,397**	**963**	**551**	**210**	**1,021**

Area	Bitter varieties and others							
	Northern Brewer (ha)	Brewers Gold (ha)	Orion (ha)	Nugget (ha)	Target (ha)	Magnum (ha)	Bullion (ha)	others (ha)
Hallertau	4,159	1,544	126	328	90	827	-	155
Spalt	2	4	-	-	1	-	-	-
Hersbruck	4	4	-	-	-	-	-	-
Tettnang	-	-	-	-	-	-	-	-
Elbe-Saale	1,504	1	-	37	1	89	99	9
Others	1	3	-	-	-	2	-	-
FRG total	**5,670**	**1,556**	**126**	**365**	**92**	**918**	**99**	**164**

Market Development (Federal Republic of Germany)

The excellent quality of the German hops regarding both yield and bitter values that became apparent in the course of the harvest soon gave rise to the farmers' fear that the huge amount of spot hops could not be sold.

The amount of spot hops was determined to be 15,000 zentners, while 25,000 tons of hops were sold by contracts.

In September 1993, the **Producer Association** felt obliged to appeal to the brewing industry "to buy at reasonable prices on the **German** hop market in 1993."

In the meantime, the prices for spot hops had reached the lowest post-war level. The price for the variety **Hallertau/Hersbrucker** thus decreased to just DEM 100 per zentner in early September, only to fall to DEM 70 per zentner in mid October. The quotes for **bitter and high alpha hops** were only slightly better - DEM 200 to 150 for **Northern Brewer** and DEM 110 and 220 for the **Hallertau high alpha varieties** - but not sufficient to cover the farmers' production costs.

At first, the brewing industry took a wait-and-see attitude, even regarding the build-up of inventories, since the beer output development for the brewing year of 1993/94 did not give rise to positive expectations.

Despite this, German **Northern Brewer** and **high alpha varieties** were sold out during the first months after harvest, resulting in higher prices for these varieties. The **variety Hersbrucker**, on the other hand, continued to be sold at very low prices.

The brewing industry probably bought most of the German hops to build up inventory. This could put the market under pressure if another surplus is produced in 1994.

The market report of the Producer Association indicated the following purchasing prices in DEM for spot hops in farmer's bales of 50 kg.

Area /variety	9/93	10/93	11/93	12/93	1/94	2/94
Hallertau Hersbrucker	150	110	50	50	100	70
Hallertau Perle	250	160	160	250	250	-
Hallertau Tradition	250	100	100	-	100	-
Hallertau Northern Brewer	200	150	150	250	250	-
Hallertau Brewers Gold	100	80	80	150	150	-
Hallertauer Select	250	100	100	100	100	-
Hallertau Magnum	250	220	220	-	-	-
Spalt	450	-	380	-	-	-
Tettnang	450	500	-	-	-	-

Apart from the variety "Hersbrucker", the hops of the 1993 harvest have been sold out on the German market since early 1994.

United Kingdom
Growth and Amount Harvested

Compared to the previous year, the UK acreage slightly decreased by 96 ha. The total area under cultivation with **aroma varieties** increased by 25 ha. The variety **Target** experienced the most important reduction of acreage, namely 52 ha.

Contrary to the preceding harvests, the UK hops did not suffer from dryness in the 1992/93 season. Winter and spring brought sufficient precipitation which resulted in good plant growth. Although acreage was 3 % below that of the year before, the yield obtained by the English farmers increased by 13 %.

The average yield of all varieties thus increased to 1.65 tons/ha compared to 1.42 tons/ha in the year before. The average bitter value of all varieties increased as well, namely by 1.0 % compared to that of the previous year.

For the first time, some smaller amounts of hops of the new cultivars **RH 40** and **TC 105** were supplied to the breweries for experimental brewing.

Market Development

Before harvest, the UK crop was estimated to be about 5,000 tons, 4,350 tons or 87 % of which were sold by contract. Since the actual amount harvested of 5,448 tons exceeded the estimates, the amount sold by contract was just below 80 %. Roughly 1,000 tons of hops were available on the spot market. As the hop need of the English brewing industry is indicated as about 6,500 tons and the quantities imported and exported were the same (each 750 tons), the UK market was soon sold out. However, the hop farmers considered the **spot prices** for **bitter hops**, that is DEM 250 per zentner, as unsatisfactory.

For 1994, the acreage is expected to be the same. 3,600 tons of hops are sold by contract. Based on the 1993 yield, this is a contract quote of 66 %.

The UK yield is made up by the single varieties (acreage and yield) as follows:

Variety	**Harvest 1993 ha**	**Harvest 1992 ha**	**Harvest 1991 ha**
Goldings	332	323	337
Fuggles	288	297	319
W.G.V.	58	60	67
Progress	90	69	62
Bramling Cross	37	31	29
Total aroma varieties	**805**	**780**	**814**
Target	1,612	1,664	1,692
Yeoman	88	110	128
Zenith	4	4	11
Omega	7	10	21
Challenger	396	410	437
Northdown	376	403	408
Northern Brewer	11	15	16
Bullion	-	-	-
Others	1	-	-
Total bitter varieties	**2,495**	**2,616**	**2,713**
Total	**3,300**	**3,396**	**3,527**

Variety	**Harvest 1993 tons**	**Harvest 1992 tons**	**Harvest 1991 tons**
Goldings	561	448	585
Fuggles	491	406	513
W.G.V.	99	71	81
Progress	118	61	93
Bramling Cross	52	37	37
Total aroma varieties	**1,321**	**1,023**	**1,309**
Target	2,615	2,370	2,813
Yeoman	128	150	203
Zenith	8	6	17
Omega	10	12	35
Challenger	732	643	820
Northdown	616	599	795
Northern Brewer	17	17	26
Bullion	-	-	-
Others	1	-	-
Total bitter varieties	**4,127**	**3,797**	**4,709**
Total	**5,448**	**4,820**	**6,018**

In comparision with the previous year, the bitter values are the following:

Variety	**Harvest 1993 %**	**Harvest 1992 %**
Goldings	5.4	4.6
Fuggles	4.1	3.7
W.G.V.	5.9	4.4
Progress	6.3	5.7
Bramling Cross	5.9	5.9
Total aroma varieties	**5.1**	**4.3**
Target	11.5	10.1
Yeoman	10.5	10.2
Zenith	9.1	9.0
Omega	9.1	8.1
Challenger	7.1	5.8
Northdown	7.7	7.0
Northern Brewer	10.0	9.0
Total bitter varieties	**10.1**	**8.8**
Total	**8.9**	**7.9**

FRANCE

Growth and Amount Harvested

The French acreage increased slightly by 5 % to 673 ha, mostly in the largest growing region, in **Alsace**, where the area planted with the variety **Strisselspalter** increased from 544 ha in the previous year to 565 ha. As in the year before, the French crop suffered from dryness during the time of cone set and ripening. Hail and wind storms adversely affected growth and yield. According to the French hop industry, it is due to those unfavourable growing conditions that the **Strisselspalt** variety's average bitter value is only moderate, that is 2.0 % on average. However, the average amount harvested of the **Elsässer aroma variety** was 1.7 tons/ha in comparison with 1.5 to/ha of the previous year.

Market Development

Before harvest, the total French crop was estimated to be roughly 970 tons. Over 90 % of the **Strisselspalt variety** were sold by contracts. About 70 % of the aroma hops are exported. Apart from a small remainder, French hops were sold quickly, especially those of the **Strisselspalter variety**. It must be admitted though that the prices for **spot hops** of the 1993 crop were considered as unsatisfactory in **France** as well. In 1994 the area under cultivation will be extended again. An increase of + 30 ha is expected for **aroma hops**. Roughly 1,000 tons of the coming harvest are sold by contracts which is about 90 % of the amount harvested in 1993.

Variety/ha	Total		Aroma hops		Brewers Gold		Northern Brewer		High Alpha	
Area	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992
Alsace	604.0	578.0	565.0	544.0	12.0	13.0	-	-	27.0	21.0
Nord	67.0	62.0	16.0	16.0	10.0	11.0	12.0	14.5	29.0	20.5
Burgundy	2.0	2.0	-	-	2.0	2.0	-	-	-	-
Total	673.0	642.0	581.0	560.0	24.0	26.0	12.0	14.5	56.0	41.5

The following amounts were harvested of the different varieties (tons):

Variety/area	Total	Aroma	Brewers Gold	Northern Brewer	High Alpha
Alsace	1,009.1	942.0	33.3	-	33.8
Nord	61.8	12.9	14.1	11.6	23.2
Burgundy	1.6	-	1.6	-	-
Total	1,072.5	954.9	49.0	11.6	57.0

BELGIUM

It is hardly understandable why we did not get any data on this country's hop cultivation and beer output.

The Belgium brewer's association did not indicate any beer output figures. No **Belgium delegation** was present at the **40th Congress of the European Brewing Trade** that took place from May 5 to 7, 1994.

In 1993, the area under cultivation was 410 ha, 15 ha more than in the previous year. The amount harvested was indicated to be 585 tons, 130 tons and 455 tons of which are aroma varieties and bitter varieties, respectively. About 2 % of the amount harvested were still unsold in spring.

The 1994 acreage is reported to be 420 ha. A total yield of 580 tons is expected from this acreage. 300 tons of the amount harvested are sold by contracts.

CZECH REPUBLIC

Since the division of the **Czechoslovakian Republic** on January 1, 1993, the hop growing areas of the **Slovak Republic** are separated, so that the **Czech Republic** includes two growing regions in the Bohemian area, namely **Zatec (Saaz)** and **Ustec (Auscha)**, as well as the Moravian areas in **Trsice.**

Growth and Harvest

In April and May it was dry with extraordinarily high temperatures. The hot and dry weather continued until late May, when the much hoped-for and urgently needed rain came. However, temperatures were still above average.

Due to these favourable conditions, bloom started about two weeks earlier than usual. From early June on, cooler temperatures slowed down plant growth.

The yield was better in comparison to the previous year which is due to the favourable growing conditions and plenty of rain that resulted in high soil moisture. Only in the Moravian area, the average yield was below that of the previous year, that is 0.81 tons/ha compared to 0.99 tons/ha in 1992.

As compared to the year before, the bitter values increased, too, since during the period of ripening the hop plants were favoured with sunny weather. Thus the bitter values increased from 2.8 % in the year before to 3.2 %.

Market Development

The only variety grown in any of the three **Czech** growing regions is the variety **Saazer.** Before harvest, the yield was estimated to be 9,100 tons, 7,000 tons or 80 % of which were sold by contracts. At the end of the 1993/94 season, in spring 1994, all the hops of the Czech growing regions were sold.

About 6,000 tons of the 1994 crop are sold by contract. The acreage is expected to decrease slightly by 100 ha.

SLOVAK REPUBLIC

Since the division of Czechoslovakia into Czech and Slovak Republics on January 1, 1993, the **Slovak Republic** is independent. For this reason, this country is mentioned separately in our report.

Slovak hops are merchandized through the association **"Slowchmel"** in **Horna Streda**. Like in the **Czech Republic**, **Saazer** is the only variety cultivated. The areas under cultivation are located near the cities of **Prnava** and **Trencin** in the **Vah valley**. The 1993 acreage is reported to be 1,200 ha that is 180 ha less than in the year before. Since the average yield per hectare increased slightly, the total amount harvested is about the same than in 1992. At the time of reporting in spring 1994, roughly 110 tons (10 % of the crop) were still unsold. The acreage is reported to be about the same in 1994. Roughly 100 tons are said to be sold by contracts which would be less than 10 % of the 1993 harvest.

SLOVENIA

In 1993, this country that is independent, since 1991 slightly increased its acreage from 2,384 ha in the previous year to 2,450 ha.

The acreage is distributed among the varieties as follows (the amount indicated in parentheses shows the difference with regard to the previous year):

Variety	Acreage ha	Changes as compared to 1992 (ha)
Steirer Golding	959	+ 31
Supersteirer Aurora	1,258	+ 150
Other Varieties	232	+ 1
Total	**2,449**	**+ 182**

The total amount harvested of 3,254 tons was roughly 200 tons above the total yield of the preceding year. However, the average yield was only 1.33 tons/ha compared to 1.54 tons/ha the year before.

The amounts harvested per variety are (the amount indicated in parentheses shows the difference with regard to the previous year):

Variety	Acreage ha	Changes as compared to 1992 (ha)
Steirer Golding	873	+ 131
Supersteirer Aurora	2,103	- 48
Other Varieties	278	+ 138
Total	**3,254**	**+ 221**

Growth and Harvest

At the beginning the plants suffered from extremly high temperatures and dryness. The sandy soils in particular lacked precipitation. The blooming period started too early, that is during the first two weeks of June.

Plant development was better in artificially irrigated gardens, the situation in dry locations, however, deteriorated constantly. In some cases, picking had to be started about 10 days ealier than usual.

Market Situation

Roughly 10 % of the hops harvested were supplied directly to the brewing industry, to Croatia in particular. As in the years before, the major part of the hops were merchandized through the **Hmezad Import/Export Association.** At the end of the season, some remainders were still unsold, mainly because it is not possible to sell on the **Yugoslavian** market and beer consumption is on the decline. The remainder is estimated to be about 50 tons, mainly of the Golding variety.

Quality

Average hop quality was good. However, due to unfavourable weather, the bitter values varied between varieties and batches.

SPAIN

The 1993 hop crop in Spain was satisfying. Both quality and yield were better than in the year before.

Growth and Market

Important factors for the good growth in 1993 were both sufficient precipitation in spring and a rather mild summer that was not too hot and dry. Due to these favourable growing conditions there hardly were any diseases. The red spider in particular occured only in a few isolated cases.

The acreage decreased by 176 ha. The yield of 2,108.6 tons that is 50 % more than in the previous year, is distributed as follows:

1,671 tons of the variety **H/3**, 437 tons of the variety **H/7**.

The variety **"Elsässer Strisselspalter"**, the total yield of which amounts to 539 kg, no longer plays an important role in Spain hop cultivation.

About 2,000 tons of the total crop are merchandized through the Spain association **Fomento de Lupulo**. The remainder is sold directly to the breweries.

The Spanish growers were paid 37.00 ECU (less than DEM 100.00) for one zentner (50 kilograms) of **spot hops. Contract prices** were 127.00 ECU (DEM 350.00).

YUGOSLAVIA-SERBIA AND MONTENEGRO

Since **Slovenia** with its hop growing regions has become independent, hop cultivation in **Yugoslavia** is now limited to Serbia, strictly speaking to the province of **Vojvodina.**

For 1993, the area under cultivation in **Bačka** is reported to be 560 ha. The total yield is said to be 841 tons. Compared to the year before, the average yield per hectare almost doubled.

The **United Nations' trade embargo** on **Yugoslavia** prohibits the import of hops as well as the export of possible surpluses on the world market. 30 % of the total yield were still unsold in spring 1994 which is obviously due to the above-average yield and the persistent economic problems in the country that do not really boost beer output.

According to latest news, hops are said to be cultivated in **Montenegro** as well. The total yield of this area is reported to be 50 tons. However, we could not find out whether acreage and yield of Montenegro had been included in the figures for Yugoslavian hop cultivation so far.

For 1994, a slight increase in acreage to 576 ha is reported.

Other European countries

AUSTRIA

In Austria, hops are cultivated in three areas, namely in **Upper Austria**, **Styria** and in the **Waldviertel** region. The total yield is sold to the local brewing industry.

The acreage increased by 15 ha or 7 %. The good yield in all three areas resulted in an increase of the average amount harvested, namely 341 tons.

Mühlviertel / Upper Austria

The area with its acreage of 116 ha is cultivated by 53 hop farmers. This means another reduction of the number of hop growers. As agreed upon, the total yield was taken up by the Austrian brewing industry. 97 % of the total crop were placed in **quality class I**. The growers were paid an average amount of ÖS 77.57 per kilogramme.

Leutschach - Styria

In Styria, an acreage of 95 ha is cultivated by 24 farmers. The total **Styrian** crop, which amounted up to 137 tons in 1993, is bought by the local brewing industry. The average price of ÖS 77.16 per kilogram was only slightly less than that paid for hops of the **Mühlviertel** area.

Waldviertel - Lower Austria

The crop brought in from this area's hop project that is sponsored by the **Zwettl brewery** was 10.5 tons. The total yield was taken up by the brewery that paid ÖS 81.50 per kilogramme.

Switzerland

A record crop was obtained in this country's growing region, the acreage of which was the same than in the year before. The average amount harvested was about 15 % higher than in 1992. In addition, the hops were of excellent quality.

At present, the varieties **Perle, Hallertau Northern Brewer, Hallertau** and the bitter variety **Orion** are grown.

Due to the Swiss breweries' increasing demand for hops with a higher content of bitter substances, varieties are currently changed to **Perle, Orion** and **Magnum**.

Hungary

On the occasion of the Spring Meeting of the **International Brewery Convention (IBC)** on March 4 and 5, 1994, it was announced that **Hungary** had resigned its **IBC** membership. The reasons given are that hop cultivation is given up to a large extent and, as a consequence, growers' associations are dissolved.

Compared to the year before, the Hungarian acreage decreased by 50 % to only 141 ha. The total yield was 185 tons. For 1994, another reduction of acreage to just 30 ha is expected.

POLAND

Weather and Harvest

Warm temperatures and sufficient rain prevailed until March and characterized the beginning of the vegetation period.

These favourable conditions continued in April and lasted until early June. Then, however, high temperatures and lacking precipitation adversely affected plant growth. Sufficient rainfall in the later course of the season compensated the dryness though.

All in all, the total yield was better than expected. While in August the crop was estimated to be 2,550 tons, the total amount harvested was 2,872 tons.

Varieties Cultivated

Of the total acreage with its 2,391 ha, 2,083 ha or 87 % are under cultivation of **aroma varieties**, while only 308 ha are cultivated with **bitter varieties**.

The total yield consists of 2,423 tons of **aroma hops** and almost 450 tons of **bitter hops**. Nearly 100 % of the crop were sold by contracts to merchants or trade associations which had difficulties with marketing the hops. In the meantime, however, the crop is considered as being sold out.

BULGARIA

Former socialist Bulgaria's hop cultivation seems to pass through a similar crisis than hop cultivation in **Hungary** that also was under a socialist regime before.

Although **Bulgaria** is a member of the **International Brewery Convention (IBC)**, no Bulgarian committee was present at the Spring Meeting in mid March 1994. In comparison to the previous year, the country's acreage decreased by 208 ha or 25 %.

Since there was no change in the average yield per ha, the total yield was only less than 600 tons. The total crop was sold to the Bulgarian brewing industry.

UKRAINE

A slight decrease in acreage by 132 ha is reported for 1993. Before harvest, the amount expected was below 4,600 tons. Actually, only 3,464 tons were harvested, 3,600 of which were **aroma hops**. The acreage is reported to decrease in 1994.

REPUBLIC OF RUSSIA

The present acreage indicated by Russian sources is said to be 3,547 ha, the amount harvested is estimated to be 3,646 tons.

The Russian growing regions are spread all over the country, the major part being situated in the West, in the European part of the country. Apart from certain concentrations in 10 areas, there obviously exists kind of a "scattered" cultivation to ensure the supply to regional breweries.

REPUBLIC OF WHITE RUSSIA

At present, no detailed information is available on the hop cultivation of this independent country that is located at the Eastern border of Poland. We came to know, however, that hops are cultivated in certain regions - possibly in the border areas towards Poland and Ukraine.

ROMANIA

Hop cultivation in Romania was extended by 750 ha that is 30 %. The total crop was only 2,900 tons resulting in a rather low amount harvested per ha. This was partly due to the newly planted hop gardens from which no yield is obtained so far. The total yield was supplied to the Romanian brewing industry.

In this country, hop cultivation is concentrated in the area of **Transylvania**. Its structure is still marked by the former planned economy of the socialist regime. Only 13 enterprises, either co-operatives or former state-owned companies, are cultivating hops. Thus the average acreage per unit is 240 ha.

The major part of the Romanian crop is sold to the local brewing industry. Certain amounts are offered on the world market where they are supplied to by private enterprises (mostly importing and exporting firms).The major part of the hops cultivated are the bitter varieties **Brewers Gold** and **Northern Brewer**. Own cultivars and **aroma varieties** only play a minor role.

ALBANIA

Until a few years ago, it was assumed that hops are grown in this country that under its communist regime was cut off from the world outside until 1992.

Recent reports confirm this assumption indicating at the same time that hop cultivation has meanwhile been given up.

OTHER COUNTRIES

AUSTRALIA

The actual weight of the 1993 harvest in Australia resulted in the following acreages and yields:

Area	Variety	Acreage (ha)	Yields (tons)	Yields tons/ha
Tasmania	APR*	175	460	2.63
	Pride of Ringwood	576	1,752	3.04
	Cluster	8	18	2.25
	Nugget	51	64	1.25
	Aroma varieties	22	18	0.81
Subtotal		**832**	**2,312**	**2.78**
Victoria	APR*	32	79	2.47
	Pride of Ringwood	280	504	1.80
	Cluster	34	46	1.35
Subtotal		**346**	**629**	**1.82**
Total		**1,178**	**2,941**	**2.50**

*) APR = Australian Highalpha

Roughly 50 % of the Australian harvest are destined for exports. Since neither **downy mildew** nor **aphids** occur in **Australia**, hops may be cultivated almost without using any plant protectants.

CANADA

The **Canadian** acreage is still the same, however, the average yield of the newly planted varieties increased in comparison with the previous year.

The varieties **Kent** and **Bramling** in particular showed good results. The development of the high alpha variety **Nugget** in **Canada** was not satisfactory though. Therefore, this variety will no longer be cultivated in 1994, so that now Canada only produces aroma varieties.

ARGENTINA

A total yield of 510 tons was produced in the Argentine growing regions, the acreage of which is unchanged in comparison with the year before. The main growing region of **El Bolson** supplied 320 tons, the **Altovalle** area 190 tons. The acreage is 190 ha in **El Bolson** and 160 ha in **Altovalle**.

INDIA

After hop cultivation had been given up in the province of **Cashmir**, another cultivation experiment was initiated by the local brewing industry, the State and India's growers' associations, this time in the Federal State of **Himachal Pradesch**. It is reported that the area under cultivation is located in the **Lahaul** and **Sipiti** valleys with the centre of **Keylong**.

For 1993, the acreage is estimated to range between 100 and 125 ha. Yield estimates amount to 46 tons. The area under cultivation is expected to increase to 150 ha in 1994. The variety grown is the US variety **Late Cluster**.

It is said that in the last few years, the brewing industry experienced an increase in beer output. Presently, over 4.0 million hl are produced per annum.

PEOPLE'S REPUBLIC OF CHINA

It seems to be confirmed that previous estimates of the amount harvested in this country ranging between 12,500 and 15,000 tons were correct.

However, the information on the actual area under cultivation in China that we obtained from various sources differs considerably. For 1993, the total crop is reported to be 13,500 tons. The acreage is said to be only 6,000 ha. Perhaps the indicated acreage is limited to the three largest growing regions of **Xinjiang, Gansu** and **Ningxia**.

The 1993 beer output is indicated as up to 120 million hl.

Due to this country's rapidly increasing beer output, the major part of the amount harvested is used by the country itself. At the time being the Chinese brewing industry almost exclusively uses hops grown in China.

JAPAN

Compared to the previous year, the Japanese acreage decreased by further 46 ha (7 %) to only 614 ha.

The amounts harvested and acreages were distributed to the 4 brewery groups as follows (the amount indicated in parentheses shows the difference with regard to the previous year):

Brewery	Acreage in ha
Kirin	371 (- 31)
Sapporo	169 (- 2)
Asahi	67 (- 11)
Suntory	7 (- 2)
Total	**614 (- 46)**

Brewery	Acreage in ha
Kirin	666 (- 104)
Sapporo	261 (- 69)
Asahi	127 (- 27)
Suntory	11 (- 5)
Total	**1,065 (- 205)**

The number of hop-growing farms decreased to 1,136 compared to 1,270 farms of the previous year. The acreage per hop farm is only 0.5 ha. It is especially the need to acquire new machinery for hop culitvation that causes Japanese hop farmers to give up hop cultivation.

Growth and Weather

In **Japan**, the 1993 summer was too cool and rainy. Despite that, hop quality was satisfying. The average yield per ha was 1.73 tons which is only slightly below the good results of the previous year.

The total harvest was bought by the breweries. Depending on the quality class (**First, Second** and **Third Quality**) the prices per kg ranged between 2,219 Yen for the **First Quality Class** and 1,599 Yen for the **Third Quality Class**. Thus, the prices paid for Japanese hops continue to be considerably higher than those paid on the world market (1 Yen = approx. DEM 1.15).

USA
Growth

Temperatures for the 1992/93 winter season were 6 to 7 degrees Fahrenheit below normal. Although temperatures were down, the hop plants were protected by an insulting blanket of snow. In **Idaho** and **Oregon**, mountain snowfall was above average, however, in **Washington**, mountain snowfall was minimal.

Spring brought more normal temperatures except for May when temperatures shot above normal giving hop plants an added boosting growth. The summer months were cooler than normal with sporadic rain showers throughout the season. Cooler temperatures kept the **mite population** down, but the **aphid population** was at a higher level throughout the summer.

U.S. production for 1993 was 76,143,700 pounds vs. 74,336,700 pounds in 1992. The average yield per acre remained steady; 1,767 pounds per acre compared to 1,759 pounds per acre in 1992. Acreage increased in 1993 by 834 acres.

Washington

The winter of 1992/93 was mild until December when snow began to fall and temperatures plunged. The snowfall in the growing areas insulated the hop plants from the frigid winter temperatures. Snowfall in the mountains was less than normal which caused some rationing of the water supply during the latter part of the growing season.

Spring work began in mid-February and moved along at a normal pace even though there were several days of rainfall which interrupted progress. In mid May, temperatures rose 5 to 8 degrees Fahrenheit above normal and continued through mid-June. These unusually high temperatures boosted initial plant growth particularly in the **aroma varieties**. From mid-June to mid-July, temperatures dropped 5 to 8 degrees below normal. The cooler temperatures slowed growth in the **alpha varieties** while the **aroma hops** thrived. Temperatures returned to normal in mid-August and lasted throughout the remainder of the growing season.

Final production figures showed improved yields in **aroma varieties** compared to 1992 which was partially attributed to weather conditions. Yield increases ranged from a high of 310 pounds per acre for **Perle** to 70 pounds per acre for **Willamette**.

Alpha variety yields dropped slightly compared to 1992 except for **Eroica** which went from 2,470 pounds per acre in 1992 to 2,120 pounds per acre in 1993.

Production for **Washington State** was 58,849,000 pounds with an average yield of 1,884 pounds per acre, which exceeded the August hop industry estimates by approximately 3 million pounds. The average yield for 1993 was only 3 pounds per acre higher than 1992. The increased yield was due to an 873 acre increase.

Oregon

The fall and winter season of 1992/1993 produced near normal precipitation and below average temperatures. Early crown growth in the spring was vigorous compared to the prior season. April and May brought unseasonal weather including 11 inches of rainfall, hailstorms, thunderstorms and funnel clouds. Mildew infections were difficult to control since access to the hopyards was limited by inclement weather. **Nugget** and **Eroica** varieties suffered the most damage from **downy mildew**.

June was cooler than normal which contributed to slower vine development. The bloom period was extended over a longer period of time during July and August. This allowed hopyards to be exposed to **mildew infection** during a critical point of the growth cycle. Most high alpha varieties were effected but **Nugget** and **Eroica** were hit hardest.

The 1993 Oregon crop totaled 11,850,000 pounds and averaged 1,500 pounds per acre. Most Oregon varieties produced a slightly higher yield over the 1992 figures. **Willamettes** averaged 1,470 pounds per acre, compared to 1,380 pounds per acre in 1992. Unfortunately **Nugget** yields decreased to 1,780 pounds per acre vs. 2,060 pounds per acre in 1992.

Idaho

After three consecutive years of light snowpack in the mountain areas, the 1992/93 winter season showed a considerable increase. The large snowpack left no doubt that there would be an abundant water supply for the hop growing season.

Spring came with cooler temperatures and more rain than usual which slowed spring work and plant growth. The cool temperatures adversely affected hop fields that were newly planted in 1993 causing a reduction in first year hop yields. The established yards yielded in the normal range. However, the low yields of the newly planted yards reduced overall crop averages. The majority of the new plants were in the **Galena** variety which brought a yield of 1,550 pounds per acre versus 1,770 pounds per acre in 1992. The overall yield for **Idaho** was 1,375 pounds per acre down slightly from 1,387 pounds per acre in 1992.

Quality

The physical appearance of the hop crop deteriorated somewhat this year due to restricted pesticide usage. This problem was particularly felt in **Oregon** with its more humid weather pattern. With increased residue restrictions in many import markets, growers were limited in the products they could use to protect plants from insects and disease. The cool weather in July held the **mites** in check, but the **aphids** were difficult to control which caused **mold** to show in some hops.

The picking quality improved as the average leaf and stem content decreased from 0.93 % to 0.79 %. Seed content increased slightly compared to 1992.

Alpha production increased to 3,523 metric tons (1992 - 3,154 metric tons) which is an 11.7 % increase. The increase is partially due to the 2.0 % increase in acreage, also, the average alpha increased in 1993 from 9.35 % in 1992 to 10.2 %. The alpha content increased for **high alpha hops** which ranged from 10.7 % to 14.7 %. **Aroma varieties** ranged from 4.5 % to 6.7 % except for Perle which had a 9.5 % to 9.8 % range.

Spot Market

There were approximately 500 bales of 1991 crop hops and 1,500 to 2,000 bales of 1992 crop hops in grower possession at the beginning of 1993. There was virtually no interest in 1991 crop hops and there was minimal interest in the 1992 crop hops with a few **Clusters** selling in mid-July for $ 0.60 per pound flat.

The first activity on the estimated 13,000 to 15,000 bales of 1993 crop spot hops came in mid-August with **Tettnang** selling for $ 2.70 to $ 2.75 per pound plus leaf and stem premiums. By mid-September, balance of the 1993 spot market started to move. The following prices were paid to growers:

Variety	Price per Pound
Cluster	$ 0.45 - $ 0.50
Cascade	$ 0.45 - $ 0.50
Perle	$ 0.40
High Alpha	$ 0.75 - $ 0.80

* All prices are flat without leaf and stem premiums.

It is estimated that 7,000 to 10,000 bales were sold at the above prices. The remaining 3,000 to 5,000 bales of spots consisting of **high alpha** and **Cluster hops** were sold in October. Prices rose to a higher level due to a warehouse fire which destroyed approximately 10,000 bales of hops, mainly of the **high alpha** and **Cluster varieties**. In addition, hop merchants were paying growers in some cases on the amount of alpha delivered. The following are prices paid to growers in October/November 1993.

continued on page 16

Varietal Structure

Acreage per variety and yield in the **U.S.** hop growing areas are as follows:

Area under cultivation per variety or group of varieties (in percent)

Variety/ Variety Group	Washington 93	Washington 92	Oregon 93	Oregon 92	Idaho 93	Idaho 92	Total 93	Total 92
Cluster	19	21	-	-	18	16	16	17
Cascade	4	4	-	-	-	-	3	3
Aroma	25	25	57	58	4	7	29	29
High Alpha	50	49	32	30	24	24	44	43
Others *)	1	1	11	12	55	54	8	8
Total	100	100	100	100	100	100	100	100

Acreage in ha per variety

Variety/ Variety Group	Washington 93	Washington 92	Oregon 93	Oregon 92	Idaho 93	Idaho 92	Total 93	Total 92
Cluster	2,423	2,613	-	-	281	254	2,704	2,867
Cascade	553	511	-	-	-	-	553	511
High Alpha								
Galena	3,428	3,380	34	41	257	207	3,719	3,628
Nugget	1,644	1,460	992	932	-	-	2,636	2,392
Chinook	983	883	-	-	129	183	1,112	1,066
Olympic	106	118	-	-	-	-	106	118
Eroica	181	151	-	-	-	-	181	151
Aroma								
Willamette	1,151	1,064	1,410	1,458	-	-	2,561	2,522
Tettnang	887	861	221	233	-	-	1,108	1,094
Mt. Hood	740	579	97	37	-	-	837	616
Perle	271	294	110	115	-	-	381	409
Banner	74	147	-	-	56	66	130	213
Aquila	29	139	-	-	-	42	29	181
Others *)	181	94	335	385	882	869	1,398	1,348
Total	12,651	12,298	3,200	3,200	1,604	1,620	17,455	17,118

Yields in tons per variety

Variety/ Variety Group	Washington 93	Washington 92	Oregon 93	Oregon 92	Idaho 93	Idaho 92	Total 93	Total 92
Cluster	5,521	5,968	-	-	661	591	6,182	6,559
Cascade	1,404	1,257	-	-	-	-	1,404	1,257
High Alpha								
Galena	7,563	7,603	57	59	446	411	8,066	8,073
Nugget	4,066	3,661	1,978	2,148	-	-	6,044	5,809
Chinook	2,291	2,098	-	-	218	313	2,509	2,411
Olympic	250	270	-	-	-	-	250	270
Eroica	428	419	-	-	-	-	428	419
Aroma								
Willamette	2,109	1,867	2,322	2,253	-	-	4,431	4,120
Tettnang	969	700	274	193	-	-	1,243	893
Mt. Hood	1,016	714	131	38	-	-	1,147	752
Perle	486	425	205	171	-	-	691	596
Banner	216	390	-	-	117	151	333	541
Aquila	69	378	-	-	-	75	69	453
Others *)	307	153	408	438	1,027	975	1,742	1,566
Total	26,693	25,903	5,375	5,300	2,470	2,516	34,538	33,719

By converting acres into ha and lbs into tons insignificant deviations may result.

*Others include: **Oregon** Aquila, Cascade, Chinook, Cluster, Eroica; **Idaho** Cascade, Mt. Hood, Nugget, Olympic, Perle, Tettnang, Willamette.

Variety	Price per pound
Cluster	$ 0.50 - $ 0.55
Cascade	$ 0.45
High Alpha	$ 0.96 - $ 1.40

Few spots are held in grower hands at this time. There are an estimated 1,000 to 2,000 bales remaining unsold, mainly in the **high alpha variety**.

According to the USDA Hop Stock Report, there were 58.1 million pounds of hops held by growers, dealers and brewers as of September 1, 1993. This was an increase of 3.2 % compared to September 1, 1992.

Hop stocks held as of September 1 of each crop year:

1987 - 70.6 million pounds
1988 - 60.6 million pounds
1989 - 51.7 million pounds
1990 - 51.9 million pounds
1991 - 54.2 million pounds
1992 - 56.3 million pounds
1993 - 58.1 million pounds

The **USDA Marketing Service** reported that the exports of 1991 -1992 increased by 17.2 million pounds to 48.5 million pounds compared to 1990 - 1991 figures. Imports decreased by 2 million pounds from 20.9 million pounds in 1990 - 1991 to 18.9 million pounds in 1992 - 1993.

Contract Market

The future hop contract market in 1993 was slow and weak throughout the year. In late May there was a small demand for future contracts in **Cluster**, **Tettnang** and **High Alpha** varieties. Price quotes were in the following ranges:

Variety/$/lb	1993	1994	1995	1996	1997	1998
Cluster	1.20-1.25	1.25-1.30	1.28-1.40	1.33-1.40	1.35-1.45	1.35-1.50
High Alpha	1.30	1.40	1.40	1.45		
Tettnang	2.70	2.75				
Mt. Hood		2.30	2.30	2.30		
Cascade			No Activity			
Perle			No Activity			
Willamette			No Activity			

After this brief interest there were no reportable sales in the future market for June.

In July and August growers tried to sell future contracts at the above prices without success. However, starting in mid-September the future market activity started up again. Growers could sell some quantities of hops.

Variety/$/lb	1994	1995	1996	1997
Cluster		1.22	1.27	
High Alpha	1.20	1.25-1.30	1.30-1.35	1.35-1.40
Tettnang			No Activity	
Mt. Hood			No Activity	
Cascade			No Activity	
Perle			No Activity	
Willamette		1.80	1.85	1.90

These prices are at, or very close to the cost of production. In order for growers to stay in the hop business at these lower prices they have to have older existing contracts which were made at higher rates.

Average Price Return for Growers

Year	$/lb.
1988	1.40
1989	1.31
1990	1.40
1991	1.58
1992	1.64
1993	1.64

These prices do not include leaf and stem premiums.

The average price for 1993 crop hops remained the same as for 1992 crop hops. The prices allowed growers to make reasonable returns for their growing efforts. The average price should decrease in the coming year due to lower priced contracts.

Plant development

The 1993/94 winter season started off cooler than normal in November with temperatures occasionally dropping below zero. However, by early December the temperatures were above normal with an average high of 30 degrees Fahrenheit and an average low of 28 degrees Fahrenheit. Temperatures have remained stable throughout the season.

Especially in the **Yakima valley**, farmers are greatly concerned about the water supply. The 1993/94 snowpack in the **Cascade Mountains** was minimal which resulted in a low water level of the storage lakes that supply the water for artificial irrigation in the valley. Therefore, water rationing could not be avoided.

Printed in Germany
The publication of our hop report involves obtaining data from all parts of the world. We wish to express our gratitude to all who assisted us.

AUSTRALIA 1994

Around April 10, 1994 the harvest of the two Australian growing regions **Victoria** and **Tasmania** was completed.

In October, heavy rain flooded **Victoria** and caused considerable damage in several hop gardens. The following cool weather and extraordinarily high soil moisture delayed plant growth. From December on, however, the general situation improved remarkably.

In **Tasmania**, which is the main growing region making up for about 70 % of the Australian crop, plant growth was delayed, too, because of the lower temperatures in spring and early summer. Thus the plants were trained about 2 weeks later than in normal years. From early January on, the growing conditions improved noticeably in **Tasmania** as well, so that the crop was good in all regions. The total yield is thus only about 5 % below the 1992 record crop.

The bitter values in **Victoria** are roughly 10 % for the main variety **Pride of Ringwood.** Based on first results, the bitter values of hops from **Tasmania** are expected to have increased by about 5 to 10 % in comparison with the previous year.

The preliminary results for the 1994 crop in **Australia** are:

Region	Variety	Acreage / ha	Crop / tons
Tasmania	APR	175	560
	Pride of Ringwood	530	1,500
	Cluster	3	5
	Nugget	62	95
	Aroma varieties	70	24
Subtotal		**840**	**2,184**
Victoria	APR	68	102
	Pride of Ringwood	238	395
	Cluster	19	26
Subtotal		**325**	**523**
Total		**1,165**	**2,707**

NEW ZEALAND 1994

In **New Zealand,** the 1994 harvest finished in late April. Contrary to the extremely low temperatures in 1993 and 1992, plant growth was subject to normal conditions. The Southern summer was characterized by warm temperatures and constant dryness.

The lack in precipitation caused problems, however, since a shortage in water for artificial irrigation had to be expected. Fortunately, later rainfalls ameliorated this situation. However, the sudden rainshowers destroyed an area under cultivation of 8 ha.

The 1994 crop is largely sold by contracts with the local brewing industry or destined for exports. Less than 10 % of the crop will be available on the spot market.

Variety	tons/yield
Super Alpha	255.3
Sticklebract	50.6
Green Bullet	93.3
Pacific Gem	204.7
NZ Hallertau	160.9
Southern Cross	0.8
Total	**765.5**

The average bitter values are (% alpha acid, as is):

Super Alpha	12.8	Pacific Gem	15.0
Sticklebract	13.7	NZ Hallertau	8.9
Green Bullet	14.1	Southern Cross	12.1

For 1995, a total yield of over 800 tons is expected.

ARGENTINA 1994

The Argentine harvest finished in late April. The total crop amounted to 450 tons, 320 tons of which were harvested in the **El Bolson** area.

The major part of the crop is made up by US varieties, a small part by **Bullions** and **Ringwood.**

SOUTH AFRICA 1994

An amount of 1,321 tons was harvested on a slightly decreased acreage that now amounts to 720 ha. Thus the average yield per ha increased from 1.78 in 1993 to 1.84 in 1994.

The good crop is mainly due to sufficient rainfall during the growing period of the hop plants. At present, there is a change in variety from the traditional **Southern Brewer** to new high alpha varieties called **Outeniqua** and **Southern Promise.** The bitter values of these new varietes are expected to range between 12 and 13 %.

Since the **South African** beer market only shows little rates of increase, it is planned to limit the area under cultivation to achieve an average production of approx. 1,000 tons only.

Since at present the South African beer market only shows little rates of increase, it is planned to limit the acreage. The average production should then amount to roughly 1,000 tons of hops.

ZIMBABWE 1994

In this country that is situated on the Southern hemisphere, hops are cultivated since 1989.

Since the acreage was exteded progressively, it is now just under 160 ha. An improved yield per ha is reported for 1994 - namely 1.6 tons/ha compared to 1.3 tons/ha in the previous year.

The only variety cultivated is **Southern Brewer** that was imported from the hop growing regions of the **South African Union.**

PLANT DEVELOPMENT 1994

EUROPE

The 1993/94 winter in Europe again brought enough precipitation; soil moisture is thus sufficient. Low temperatures until late April slightly delayed the development of the hop plants in early spring. The following weeks, until early summer, were characterized by various conditions. Cool, rainy periods and warm, dry spells succeeded one another.

When this report went to print in late July 1994, the development of the hops in the European growing regions was average or even less which is due to insufficient rainfall and high remperatures in July.

PROSPECTS 1994

The present information on the development of the area under cultivation in the most important hop producing countries in **Europe** and **abroad** do not reveal any significant decreases in acreage. For **Germany**, a reduction by roughly 1200 ha, that is about 5 %, is expected (900 ha of which in the **Hallertau** area). The **U.S.** acreage will be reduced by 269 ha or 1.5 %.

Until mid July, the crop in both Europe and the United States was expected to be normal. Especially in the growing regions located in Central Europe, however, a heat wave prevailed from that time on which may adversely affect quantity and bitter values if it does not start to rain soon.

The necessity of adjusting the areas under cultivation is discussed on page 3, in the "**Market Analysis**" section.

200 years Joh. Barth & Sohn

The history of the **Barth** company is closely connected to the development of both hop trade and brewing industry during the last 200 years. The company's fate has just as much been influenced by the relevant political and economic surroundings.

When in 1794, **Johann Barth** (1717 - 1796), who according to the church register was a "citizen, dressmaker, grocer and beer brewer", decided to trade the hops cultivated in the surroundings of the town of **Betzenstein** in Central Franconia, the general situation in **Germany** was marked by the "old **Holy Roman Empire of the German Nation**". It was the **Napoleonic integration of territory in 1806, the German Customs Union** in 1834, the extension of the railway network from 1935 on, the foundation of the **German Empire** in 1870 and finally the introduction of the **reichsmark** as uniform currency from January 1, 1876, on that paved the way for a large uniform economic community that, with its **Nuremberg** centre, encouraged the hop trade in Southern Germany.

In 1860, when the company moved to **Nuremberg**, the third generation of the **Barth family** benefited from the upswing of the hop market and the fact that the raw material of hops has become an international trading commodity.

At the end of the 19th century, the industrial revolution and the economic rise of young continents encouraged the formation of breweries and the increse of world beer output. But the outbreak of **World War I** and the consequences of the lost war for **Germany** brought great losses to the trading company. The first post-war Barth report that was published in 1920 describes the new situation as follows:

"Our last report dated July 1914 was still written in the happy peaceful times of a golden age. Since then the world has changed".

Post-war confusion with inflation, the Great Depression, **Prohibition** in the **U.S.A.** and, from 1933 to 1945, political and economic interventions of the National Socialist government, was another challenge the management of the company had to face.

It was only thanks to a cautious conduct of business, based on experience in the markets and the staff's efforts and initiative that the company was able to survive the critical years of World War II. At the same time, these were the preconditions for the company's participation in the upswing of world trade and the internationalization of those markets where hops were purchased and sold. In the same way, the company benefited from the change of the hop trade structure from 1955 to 1970 which resulted from the introduction of multi-variety cultivation, hop contracts and, above all, hop products. The last significant change in the company's environment were the **German Unification** and the opening of the East European countries after having overcome the **Cold War** in 1989/1990.

The motto of the **Barth** company is: "To really own what you have inherited from your ancestors, you must earn it again yourself." This means that business always is before reward.

The document "**History of a Family and Enterprise**" that is published on the occasion of the company's anniversary is available upon request.