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HOPS 1978/1979

Hops 1978/79

Political Situation

The conclusion of a peace treaty between Egypt and Israel is only a first step towards pacification of the Middle East. The Arabian League countries do not recognize this agreement. Peace was also concluded between Japan and the PR China in August, 1978. China is trying to achieve a closer relationship to the USA and Western Europe. In Iran the imperial government was overthrown after bloody outbreaks of violence and an „Islamic Republic" was proclaimed in early April, 1979. The political and economic consequences of the overthrow can not yet be fully grasped.

Economic Situation

Despite the worldwide persistent cost and price inflation, an improvement of the economic situation has occured. Experts are expecting an increase of the world trade volume by 5-6 % in 1979. In December, 1978, the OPEC countries concluded a step-by-step increase of the petroleum prices by 14.4 % on the whole for the coming year. Already by the end of March, 1979, in Geneva a rise of 8.9 % was put through coming up to the level originally foreseen for October. In the industrial countries affected very strongly by this development, the research and use of other energy sources achieves importance. The dependence upon the supply of energy and raw material from the so-called Third World requires their economic use.

US-governmental interventions prevented a further decay of the dollar rate of exchange (gradual rise of the Prime Rate to 11.5 % in December, 1978; increase of the minimum reserves, and other measures).

In the **Federal Republic of Germany** the 1978 Gross National Product grew by 3.4 %, the balance of trade closed with a surplus of 40.7 billion DM, the second-best result ever achieved. The balance of current transactions achieved a surplus of 16.2 billion DM. With a rate of inflation of only 2.6 %, Germany was among the leading countries.

For 1979, there are the following predictions: Gross National Product + 3.5 to 4 %, cost of living + 4 %. On 30. 3. 1979, the discount rate and the bank rate for collateral loans were marked up by 1 % each by the Bundesbank in order to counteract a possible in inflationary surge. The discount rate amounts at present to 4 %, the bank rate for collateral loans is 5 %.

The most important data:

World-		1977	1978	Difference
cultivation area	ha.	78.563	77.611	— 1 %
hop production	t.	116.891,5	109.018,0	— 7 %
α-production	t.	7.048,9	6.421,7	— 9 %
beer production	million hl.	848,4	873,1	+ 3 %

Production of Beer 1978

Country	1000 hectolitres	
Germany, Fed. Rep.	91.656	
United Kingdom	65.880	
USSR*)	65.000	
Germany, Dem. Rep.	23.000	
France	22.781	
Czechoslovakia	22.058	
Spain	18.653	
Netherlands	14.651	
Belgium	13.830	
Poland	11.378	
Jugoslavia	10.005	
Romania*)	8.150	
Denmark	8.057	
Italy	7.963	
Austria	7.480	
Hungary	7.244	
Ireland	5.824	
Bulgaria	5.160	
Sweden	4.111	
Switzerland	4.000	
Portugal	2.852	
Finland	2.606	
Greece	2.100	
Norway	1.915	
Luxembourg	682	
Malta*)	100	
Iceland	32	
Europe		427.168
USA[1])	210.135	
Brazil	26.530	
Mexico	21.994	
Canada	20.386	
Colombia	10.964	
Venezuela	9.300	
Peru	4.200	
Cuba	3.000	
Argentina	2.043	
Ecuador	1.980	
Chile	1.499	
Bolivia	1.063	
Guatemala	795	
Costa Rica	670	
Uruguay	650	
Puerto Rico	631	
Dominican Rep.	623	
El Salvador	600	
Jamaica	580	
Nicaragua	550	
Paraguay	500	
Panama	490	
Honduras	416	
Trinidad and Tobago	300	
Martinique and Guadeloupe	100	
America		319.999
South Africa	6.000	
Nigeria	4.890	
Zaire	3.905	
Kenya	2.250	
c. f.	17.045	747.167

Country	1000 hectolitres	
b. f.	17.045	747.167
Cameroons	2.100	
Ivory Coast	1.250	
Angola*)	1.000	
Zambia	1.000	
Ruanda-Burundi	980	
Tanzania	850	
Simbabwe Rhodes.	730	
Mozambique	693	
Algeria*)	600	
Gabun	529	
Ghana	500	
PR Congo (Brazzav.)	464	
Ethiopia	435	
Egypt	415	
Tunisia	354	
Morocco	346	
Uganda	295	
Togo	290	
Madagascar	253	
Central Africa	239	
Senegal	238	
PR Benin (Dahomey)	225	
Mauritius a. Reunion	200	
Upper Volta*)	200	
Tchad	185	
Liberia	160	
Southw.Afr.(Namib.)*)	150	
Sudan	104	
other countries*)	240	
Africa		32.070
Japan	44.300	
Philippines	6.225	
South-Korea	4.654	
Turkey	2.460	
Taiwan	2.142	
China, Peoples Rep.*)	1.800	
Vietnam*)	1.500	
India*)	1.344	
Thailand	1.300	
Malaysia a. Singapore	1.270	
Hongkong	624	
Indonesia	544	
Israel	456	
Iran	420	
Iraq	300	
Cyprus	152	
Syria	130	
Lebanon	100	
Sri Lanka (Ceylon)*)	75	
Jordan	47	
Pakistan*)	25	
Asia		69.868
Australia	19.511	
New Zealand	4.371	
Tahiti and New Caledonia	92	
Australia/Oceania		23.974
WORLD		873.079

*) Estimate

[1]) USA: Above figure refers to **beer produced** in 1978, i.e. including non-taxable and exported quantities

Beer Production

The increase of the world beer production in 1978 by almost 3 % is within the expected amount. While in Europe a slight decrease was to be noticed in comparison to 1977, America and Africa had a surplus of 5.4 % and Asia even of 11.6 %. There was practically no change in Australia/Oceania.

In **Pakistan** the production of beer was prohibited; the brewery was forced to close down. With the proclamation of the Islamic Republic in Iran, the brewing industry of this country is hit by the same fate.

1978 Crop

Market Observations

The increase in prices of the 1977 crop already signalled the change of the hop market, which occured more impetuously than it was presumed. The European markets determined the development of prices in 1978, a leading position having been held by the Hallertau. Causes for this sudden change are:

- the smaller hop crop due to reduced acreages and owing to the weather conditions (— 7 %),
- the α-production, which has also been low (— 9 %) in relation to the preceding year, and
- the substantial demand for aroma hops, the cultivation of which has considerably decreased during the recent years.

In the countries which traditionally supply the world hop market (European Community, Czechoslovakia, Jugoslavia, Poland, USA and Australia), the 1978 crop decrease in comparison with 1977 amounted to some 154.000 Ztr. (7.700 t) of hops, a shortage which with an increasing world beer production (+ 3 %), caused the rising price tendencies emanating from the aroma varieties.

By passing over to available provenances and transfers from the 1978 crop to later years, the worst bottlenecks could be bridged. Existing brewery reserves were substantially reduced. The provisioning with bitter hops was at no time a problem.

The American market profited by the narrow European markets. With increasing quotations for European bitter hops, US hops became attractive with regard to their price, last not least also due to the weak dollar rate. A considerable part of the American offers originated from breweries which were able to cut down their large stocks.

The 1978 world hop crop was marketed with only minimum remainder. The psychological adaption to the drastically higher prices was not found to be easy after five years of cheap quotations and was accepted only hesitatingly by the breweries.

Contract Market

The price movement of the 1978 spot hops was followed by a corresponding increase of the contractual quotations. With the conclusion of the 1978 crop, the contract business began quite early, initiated by large overseas breweries, which contracted large quantities of future European aroma hops.

In Germany, the conclusion of forward contracts is based upon certain maximum quantities per variety/ hectare in order to guarantee their fulfillment in the event of weaker crops. In the case of aroma hops, for 1979 and 1980 these maximum quantities have been already sold. Even if the cultivation stop valid for the Common Market until 31. 12. 1979, should not be extended, only as from 1981 onwards may yields of the new planted areas be expected.

In Czechoslovakia, Jugoslavia and Poland, the 1979 and 1980 export quotas are already booked out. Since the USA are also for the most part sold out in these crops, a very scarce supply is to be expected during these years, unless large harvests bring about a relief.

On the basis of average crop yield, the percentage of contractual hops in the 1979 crop can be estimated as follows:

Fed. Rep. of Germany	90-95 %	USA	98 %
France Alsace	100 %	CSSR	95 %
Flanders	30 %	Jugoslavia	95 %.
Belgium	25-30 %		

Acreage and Hop Production

Country	1977 Acreage hectares	1977 Ø ton per ha	1977 Crop tons = 1.000 kg	1978 Acreage hectares	1978 Ø ton per ha	1978 Crop tons = 1.000 kg
Hallertau	16.290	1,98	32.311,8	15.012	1,73	25.999,3
Spalt	932	1,55	1.452,3	797	1,79	1.430,8
Hersbruck	244	1,84	450,2	169	1,67	282,3
Jura	540	1,99	1.078,0	512	1,94	994,8
Tettnang	1.221	1,37	1.680,3	1.109	1,44	1.593,7
Other Districts	23	1,40	34,2	23	1,27	29,2
Germany, Federal Rep.	**19.250**	**1,92**	**37.006,8**	**17.622**	**1,72**	**30.330,1**
Kent	3.204	1,19	3.841,5	3.175	1,55	4.915,7
Hampshire	206	1,16	240,6	209	1,35	281,2
Sussex	266	1,06	284,1	251	1,50	378,0
Herefordshire	1.634	1,28	2.097,4	1.624	1,74	2.835,3
Worcestershire	613	1,25	769,5	586	1,76	1.029,6
England	**5.923**	**1,22**	**7.233,1**	**5.845**	**1,62**	**9.439,8**
Alsace	603	1,87	1.131,2	530	1,92	1.016,2
Burgundy	62	1,63	101,0	57	1,18	67,5
Flanders	299	1,66	479,0	280	1,44	402,9
Other Districts	20	1,50	30,0	20	0,74	14,8
France	**984**	**1,77**	**1.741,2**	**887**	**1,69**	**1.501,4**
Aalst	254	1,76	447,5	177	1,72	304,8
Poperinge	698	1,89	1.325,0	602	1,69	1.016,9
Vodelée	30	1,41	42,5	22	1,50	33,0
Belgium	**982**	**1,84**	**1.815,0**	**801**	**1,69**	**1.354,7**
EC-Countries, w/o. Ireland	**27.139**	**1,76**	**47.796,1**	**25.155**	**1,69**	**42.626,0**
Saaz	7.020	1,14	8.072,0	7.040	0,92	6.442,3
Auscha	1.787	1,27	2.270,0	1.795	1,12	2.016,2
Tirschitz	} 1.393	} 1,34	} 1.870,0	615	1,14	703,5
Slovakia				950	0,97	925,8
Czechoslovakia	**10.200**	**1,19**	**12.212,0**	**10.400**	**0,97**	**10.087,8**
USSR	**11.300**	**0,97**	**11.000,0**	**12.000**	**0,92**	**11.000,0*)**
Slovenia	2.189	1,24	2.719,5	2.135	1,37	2.917,8
Backa	990	1,75	1.733,0	966	1,42	1.373,6
Jugoslavia	**3.179**	**1,40**	**4.452,5**	**3.101**	**1,38**	**4.291,4**
Germany, Democratic Rep.	**2.175**	**1,35**	**2.944,6**	**2.104**	**1,13**	**2.386,5**
Poland	**2.329**	**1,06**	**2.474,0**	**2.400**	**0,81**	**1.942,5**
Bulgaria	**1.400**	**0,53**	**750,0*)**	**1.400**	**0,53**	**750,0*)**
Romania	**1.100**	**0,80**	**880,0*)**	**1.100**	**0,80**	**880,0*)**
Hungary	**501**	**0,79**	**400,0*)**	**557**	**1,06**	**590,0**
León	1.737	1,15	2.010,2	1.737	1,19	2.069,3
Cantábrica and Galicia	66	0,56	36,9	66	0,31	20,5
Spain	**1.803**	**1,13**	**2.047,1**	**1.803**	**1,16**	**2.089,8**
Other European Countries	**438**	**1,52**	**669,4**	**440**	**1,07**	**472,7**
EUROPE	**61.564**	**1,39**	**85.625,7**	**60.460**	**1,28**	**77.116,7**
Washington	8.386	2,06	17.193,0	8.643	2,10	18.163,8
Oregon	2.220	1,89	4.216,1	2.216	1,68	3.723,1
Idaho	1.179	1,98	2.328,3	1.082	2,03	2.192,2
California	611	1,82	1.109,1	594	1,56	925,8
USA	**12.396**	**2,01**	**24.846,5[1])**	**12.535**	**1,99**	**25.004,9[1])**
Canada	**326**	**1,39**	**455,5**	**327**	**1,44**	**470,6**
Argentina	**340**	**0,76**	**260,0**	**340**	**0,74**	**250,0**
Japan	**1.287**	**1,77**	**2.287,0**	**1.234**	**1,76**	**2.167,0**
Victoria	442	1,35	776,0	425	1,60	668,8
Tasmania	587	1,99	1.330,0	565	2,11	1.194,0
Australia	**1.029**	**1,75**	**2.106,0**	**990**	**1,88**	**1.862,8**
New Zealand	**136**	**1,46**	**198,3**	**137**	**1,54**	**210,5**
Other Countries	**1.485**	**0,74**	**1.112,5*)**	**1.588**	**1,14**	**1.935,5*)**
WORLD	**78.563**	**1,48**	**116.891,5**	**77.611**	**1,40**	**109.018,0**

*) Estimate

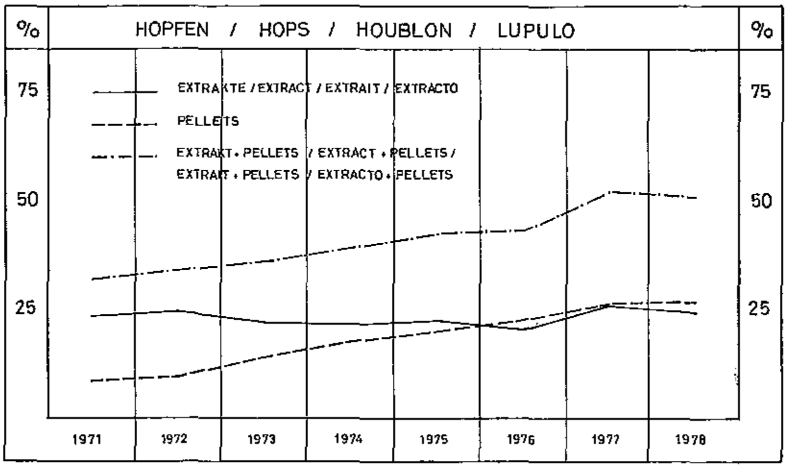
[1]) 1 to = 2,204 lbs = 11.02 Standard bales

Hop Products

Because of the smaller crop, in 1978 less hops were processed into extract and pellets. With the reserve always given with **estimates,** the following figures can be indicated:

Processed to			1976	1977	1978
Extract:	Fed. Rep. of Germany	ca.	8.800 to	13.675 to	10.255 to
	USA	ca.	7.200 to	9.425 to	10.000 to
	Other countries	ca.	5.850 to	7.050 to	6.290 to
		ca.	21.850 to	30.150 to	26.545 to
	= % of world production	ca.	20,3	25,8	24,3
Pellets:	Fed. Rep. of Germany	ca.	11.975 to	15.600 to	12.870 to
	USA	ca.	6.750 to	6.900 to	7.500 to
	Other countries	ca.	5.670 to	8.050 to	8.790 to
		ca.	24.395 to	30.550 to	29.160 to
	= % of world production	ca.	22,7	26,1	26,7

For the representation of the trend, the hops processed were given in % of the world hop production from 1971 to 1978 in the following graph:



While the percentage of extract remained rather constant with 24-25 % of the world hop production, there is still an increasing tendency with pellets.

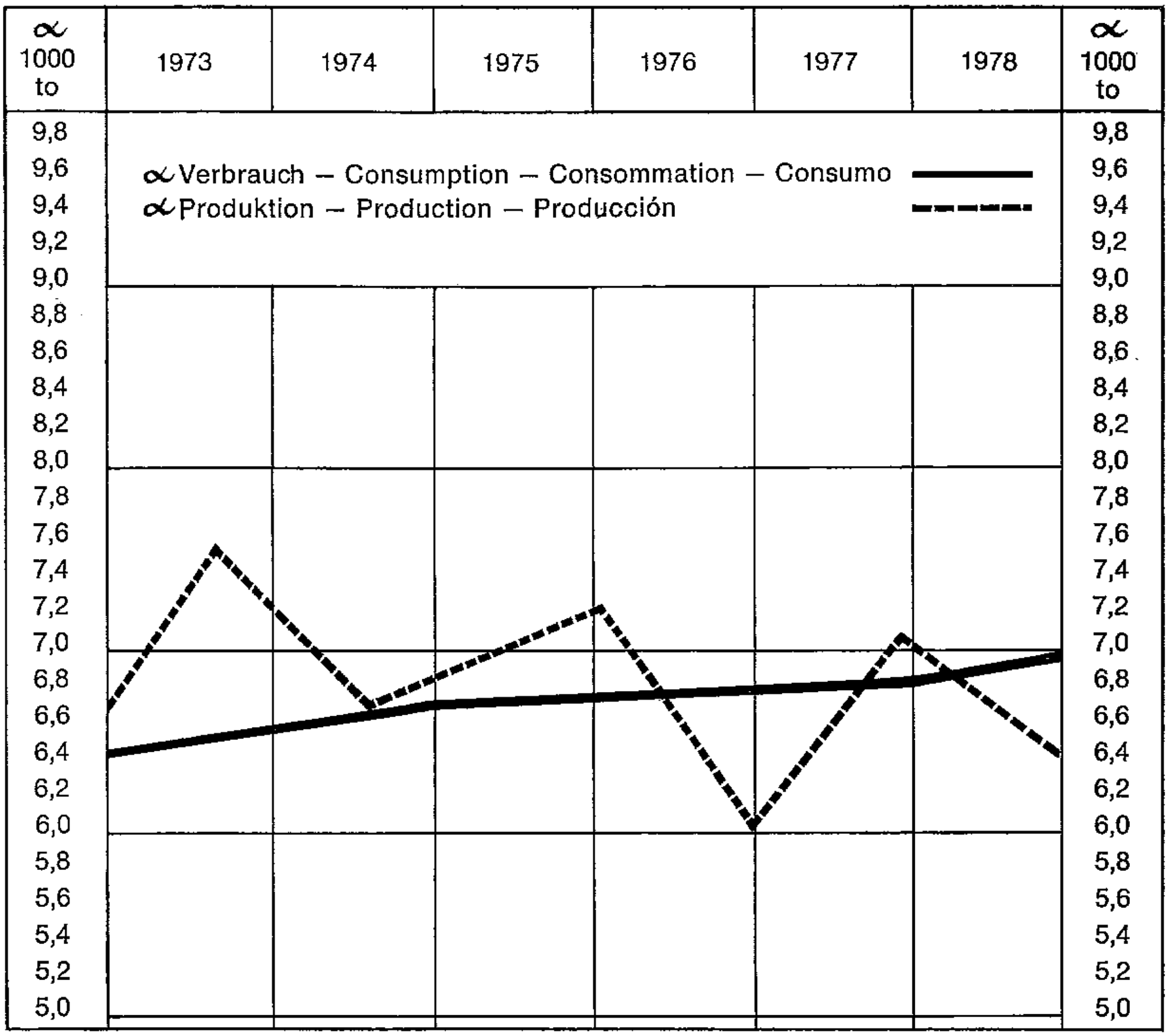
Bitter Values 1978 Crop

The cool weather and lack of sunshine during the summer in Europe affected nearly all varieties and prevented a sufficient formation of lupulin. With some exceptions only, the α-values of the 1978 crop were as low as during the hot but dry year 1976. Also the US-Yakima hops were below the average of the last 10 years.

	1977			1978		
Variety	Total Resin Content	α	% of total resins	Total Resin Content	α	% of total resins
Hallertau/Hallertau	13,5	4,9	36,3	11,9	3,8	31,9
/Hersbruck	13,5	4,9	36,3	11,8	3,8	32,2
/Hüller				13,3	4,4	33,1
/Northern Brewer	17,7	8,6	48,6	15,1	7,2	47,7
/Brewers Gold	14,8	6,5	43,9	13,4	6,0	44,8
Spalt	13,7	5,1	37,2	11,8	3,9	33,1
Tettnang	12,8	4,8	37,5	11,5	4,0	34,8
Saaz	12,0	3,9	32,5	11,0	3,4	30,9
Alsace / Strisselspalt	14,0	5,0	35,7	12,1	4,0	33,1
Jugoslav. Styria (Golding)	12,7	5,4	42,5	14,9	6,3	42,3
Belgian Northern Brewer	17,5	8,4	48,0	15,7	7,6	48,4
Belgian Brewers Gold	12,5	5,3	42,4	12,4	5,5	44,3
Polish Lublin	14,6	5,2	35,6	12,8	4,1	32,0
US-Yakima Clusters	16,8	6,9	41,4	16,1	6,7	41,6

The figures in the above table refer to the values per Oct./Nov. 1978, **as is,** α evaluated conductometrically. Therefore, they cannot be used as a basis for the evaluation of supplies in the later course of the season.

World Production of Beer and Alpha



For the determination of Alpha production following classification of hops has been maintained:

Group A) **Choicest Aroma Hops** (Saaz, Tettnang, Spalt)

Group B) **Aroma Hops** (Hallertau, Hersbruck, Hüller, Strisselspalt, Lublin, Golding, Fuggle, Cascade and others)

Group C) **Hops with no influence on the World Market** (Eastern Europe, England, Spain, Africa, Asia and other countries)

Group D) **Bitter Hops** (Northern Brewer, Brewers Gold, Cluster, Bullion, Pride of Ringwood and others)

Hop Group	1977				1978			
	% of World Crop	Crop metr. tons	α ⌀	α metr. tons	% of World Crop	Crop metr. tons	α ⌀	α metr. tons
A	12	14.001,1	4,03	563,7	11	11.781,1	3,48	410,2
B	24	27.659,8	4,93	1.363,7	22	24.547,2	4,46	1.096,2
C	25	29.873,9	5,82	1.739,6	30	32.434,2	6,37	2.065,6
D	39	45.356,7	7,46	3.381,9	37	40.255,5	7,08	2.849,7
Total	100	116.891,5	6,03	7.048,9	100	109.018,0	5,89	6.421,7

Keeping the average rate of **8 gm alpha acid per hectolitre of beer** throughout the world — rate determined in 1977 — the following alpha balance results:

1975:	802,41 mill. hl × 8,4	= 6.740,2 to α	**1977:**	848,37 mill. hl × 8,0	= 6.787,0 to α
	Production	7.234,0 to α		Production	7.048,9 to α
	Surplus	493,8 to α		Surplus	261,9 to α
1976:	825,71 mill. hl × 8,2	= 6.770,8 to α	**1978:**	873,08 mill. hl × 8,0	= 6.984,6 to α
	Production	6.012,3 to α		Production	6.421,7 to α
	Deficit	758,5 to α		Deficit	562,9 to α

Considering that the alpha production of one year has practically to cover the alpha requirements of the following year, the picture looks as follows (taking the figures determined in the preceding hop reports as a basis):

Requirement 1974	6.553,1 to α	Requirement 1977	6.787,0 to α	
Production 1973	7.468,7 to α	Production 1976	6.012,3 to α	
Surplus	915,6 to α	Deficit	774,7 to α	
Requirement 1975	6.740,2 to α	Requirement 1978	6.984,6 to α	
Production 1974	6.631,1 to α	Production 1977	7.048,9 to α	
Deficit	109,1 to α	Surplus	64,3 to α	
Requirement 1976	6.770,8 to α	Requirement 1979	ca. 7.180,3 to α	(Estimate)
Production 1975	7.234,0 to α	Production 1978	6.421,7 to α	
Surplus	463,2 to α	Deficit	758,6 to α	

Accordingly, since the 1973 record crop, a total deficit of alpha acids of approximately 200 tonnes is reckoned owing to the poor 1976 and 1978 crops.

EUROPEAN COMMUNITY (EEC)

The negotiations of accession of **Greece** — which has already been associated with the EEC since 1. 12. 1962 — were brought to an end in Brussels on 4. 4. 1979. This makes Greece the tenth full member of the Community as from 1. 1. 1981. A transition period of 5 years was foreseen for the purpose of economic adaptation.

European Currency System (ECS)

On the occasion of the summit meeting of the most important industrial nations of the Western world in July, 1978 in Bremen, the creation of a European Currency System (ECS) was decided. „Pegged" exchange rates and strict rules of intervention are meant to bring about a better stability of the currencies involved. This, however, requires at the same time an efficient fighting of inflation.

The rules of intervention include the supporting intervention of the Central Banks concerned, in case fluctuations of a currency exceed the fixed spread. The exchange parities are to be revised every 5 years, or, if changes of 25 % should occur, upon application.

The new European Currency Unit (ECU) only serves as a unit of account for the rates of exchange and for the settlement between the Central Banks of the EEC-countries involved. Due to discrepancies on the agricultural sector, the ECS was put into force with delay on 13. 3. 1979. Apart from the United Kingdom, all the member countries of the EEC joined the currency system.

Hop Market

Some 70-75 % of the EEC-expenditure are alloted to the European Agricultural Guidance and Guarantee Fund (FEOGA), generally called Agricultural Fund. From this fund, some 17.4 billion DM were paid for the support of the agricultural prices in 1977.

According to the Regulation (EEC) No. 890/78 issued by the Commission on 28. 4. 1978, the certification of hops and hop products from the Community came into force on 1. 8. 1978. For the importation of these products from non-member countries further regulations were issued.

Regulation (EEC) No. 1646/78 issued by the Commission and dated 13. 7. 1978 with implementation provisions for the control of the minimum requirements for the marketing of hops imported from third countries;

Regulation (EEC) No. 2397/78 issued by the Commission and dated 13. 10. 1978 concerning the certificates of equivalence for hops imported from third countries;

Regulation (EEC) No. 2709/78 issued by the Commission and dated 21. 11. 1978 dealing with amendments to the Regulation (EEC) No. 2397/78 on certificates of equivalence for hops imported from third countries;

Regulation (EEC) No. 3076/78 issued by the Commission and dated 21. 12. 1978 dealing with the importation of hops from third countries;

Regulation (EEC) No. 3077/78 issued by the Commission and dated 21. 12. 1978 dealing with the determination of the equivalence of the certificates for hops imported from third countries with the Community certificates. It contains the list of those foreign Authorities making out such certificates;

Regulation (EEC) No. 235/79 issued by the Commission and dated 5. 2. 1979 to amend the Regulation (EEC) No. 1696/71 dealing with the common market organization for hops with regard to the determination of the equivalence of the certificates accompanying the hops imported from third countries;

Regulation (EEC) No. 673/79 issued by the Commission and dated 4. 4. 1979 to amend the Regulation (EEC) No. 3077/78 dealing with the determination of the equivalence of the certificates for hops imported from third countries with the Community certificates. Portugal has been enclosed as new country.

Furthermore the following Regulations have been issued:

Regulation (EEC) No. 672/79 issued by the Commission and dated 4. 4. 1979 dealing with the prolongation of periods fixed for the certification of hops.

Regulation (EEC) No. 593/79 issued by the Council and dated 26. 3. 1979 on the establishment of the list of areas, in which the producction aid for hops is to be granted only to recognized producers groups. Alsace has been added.

It is reported that from 1980 onwards, neither aids for structural measures nor grubbing premiums will be granted since the desired goal of stabilization of the hop markets has been achieved. The hop cultivation stop limited until 31. 12. 1979 will not be extended.

The proposal dealing with aids to hop producers for the 1978 crop has been presented to the Council by the EEC Commission within the stipulated time. Due to the better market prices, the rates have been reduced; only with bitter hops is a compensation for the low hectare yields to be created by increasing the aid. The EEC Commission proposal provides for the following rates:

Aroma hops	350 Acc. Un. = DM 1.190,— per ha. (1977: 375 Acc. Un.)
Bitter hops	300 Acc. Un. = DM 1.020,— per ha. (1977: 285 Acc. Un.)
Others	400 Acc. Un. = DM 1.360,— per ha. (1977: 500 Acc. Un.).

FED. REP. of GERMANY

Growth 1978

The mainly wet and cold weather in 1978, interrupted only by short warm spells, was not favourable for the growth of hops. There were only small damages by stormy weather; also the diseases were less frequent than in the preceding year. The flowering was satisfactory but the formation of cones remained only moderate.

Quality. With regard to the α-content, the aroma hops had about the same low values as in 1976. Northern Brewer and Brewers Gold were slightly above, but also they were disappointing.

1978 Crop

The crop estimate, carried out as usual at the end of August, and the official weighing-up on 31. 3. 1979, revealed the following figures:

	Estimate		Weighed on 31. 3. 79	
	Ztr.	Tonnes	Ztr.	Tonnes
Hallertau	525.000	26.250	519.986	25.999,30
Jura	20.000	1.000	19.896	994,80
Spalt	27.000	1.350	28.615	1.430,75
Hersbruck	6.100	305	5.646	282,30
Tettnang	31.000	1.550	31.874	1.593,70
remaining districts	630	31,5	585	29,25
Total	609.730	30.486,5	606.602	30.330,10

Compared with 1977, the acreage under cultivation was smaller by 8.5 %, while the decrease of the crop amounted to 18 %.

Producers Groups

By decision of the Hallertau Producers Group dated 31. 7. 1978, the farmers were allowed to sell hops of the new crop only up to 20. 8. 1978. After this date, the members were bound to offer all the hops unsold at that time, to the producers group. These hops were later settled as follows:

		(Advance payment)
Aroma hops	DM 425,— per 50 kg	(DM 380,—)
Northern Brewer	DM 300,— per 50 kg	(DM 200,—)
Brewers Gold	DM 230,— per 50 kg	(DM 200,—)

plus 8 % value-added tax.

While the Spalt Producers Group joined the obligation of intra-group offers for their members, the Tettnang Group renounced this measure.

Purchase from Farmers

With the obligation of intra-group offers becoming commonly known, in all the cultivation areas an increased demand arose, which, however, was — with some exceptions only (non-members of producers groups) — met by almost no offers owing to the smaller crop.

The prices mentioned in the following table, valid as of 7. 9. 1978, refer to contractual surplus deliveries and can not be equated with the purchase from farmers, as it was previously customary.

Area/Variety	20. 8.	7. 9.	14. 9.	21. 9.	28. 9.	5. 10.	19. 10.	26. 10.
Hallertau Aroma	360,—	360,—	400,—	420,—	450,—	420/430,—	400/420,—	400/420,—
Hallertau Northern Brew.	280,—	300,—	330,—	330,—	330,—	330,—	300/330,—	300/330,—
Hallertau Brewers Gold	220,—	220,—	220,—	220/230,—	230,—	230,—	250/260,—	250,—
Spalt Aroma	400,—	420,—	460,—	470/480,—	550,—	550,—	—	—
Tettnang	410,—	430,—	450,—	500,—	550,—	550,—	550,—	550,—
Hersbruck Aroma	—	—	370/400,—	400,—	400,—	400,—	420,—	—

The precited prices are understood in DM per 50 kg, ex producer's premises, excluding packing and value-added tax.

Due to the poor crop result there were many cases of underdeliveries of contracts, which on the average amounted to 11 % for aroma varieties and 8 % for bitter hops. By mid-October, all cultivation areas were cleared apart from some small remainders.

Nuremberg Market

Until July the business with hops of the 1978 crop took its normal course. After the obligation of intra-group offers was known, the situation changed suddenly. For want of getting covered from first hand, a brisk business activity developed through the Nuremberg market, special demand being laid on aroma hops from all German provenances. On the bitter hops side, Northern Brewer took a clear precedence over Brewers Gold.

The development of prices was as represented below:

Area/Variety	until July 1978	Aug. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb./Apr. 1979
Hallertau Aroma	370/385,—	410/440,—	470/510,—	490/535,—	470/490,—	470/505,—	485/505,—	500/510,—
Hallert. N. Brewer	280/290,—	320/340,—	340/350,—	320/330,—	320,—	310,—	300,—	320/360,—
Hallertau B. Gold	245/250,—	260/270,—	270/290,—	280,—	270/280,—	270,—	270,—	270/305,—
Spalt	390/400,—	460/470,—	480/490,—	570/585,—	540/560,—	565/570,—	560/565,—	565/570,—
Tettnang	415/425,—	475,—	495/510,—	600/605,—	555/565,—	—	575,—	—

The above quotations are understood for 50 kg of packed hops, ex warehouse, excluding packing material and VAT.

With the exhaustion of aroma hops at the beginning of 1979, the bitter varieties were able to realize price profits.

Contract Market

The tight supply situation on the aroma sector led to an early interest by the breweries for follow-up contracts, mainly for the 1979-1981/83 crops, occasionally also beyond that. The contractable quantities 1979/80 were quickly exhausted, and also the 1981/82 crops are available only with difficulities. The demand shifted more and more to varieties with a high bitter content, for which already today parallel tendencies are shown.

At the beginning of May, 1979 the producer's prices were nominally quoted as follows:

Variety		1979	1980	1981	1982	1983
Hallert./Hersbruck	DM	550,—	550,—	450,—	430,—	420,—
Northern Brewer	DM	350,—	350,—	350,—	350,—	350,—
Brewers Gold	DM	300,—	300,—	300,—	300,—	300,—
Spalt	DM	600,—	600,—	550,—	550,—	550,—
Tettnang	DM	600,—	600,—	550,—	550,—	550,—

Above quotations per 50 kg ex producer's premises, excluding VAT and packing material.

Acreage

For 1978, the hop acreage under cultivation is made up as follows:

Growing Region	1975 Total Acreage ha	1978 Existing Acreage ha	1978 New Plantings ha	1978 Total Acreage ha
Hallertau	16.911	14.761	251	15.012
Jura	491	499	13	512
Spalt	1.089	791	6	797
Hersbruck	336	165	4	169
Tettnang	1.351	1.109	—	1.109
other regions	33	22	—	22
Federal Republic	20.211	17.347	274	17.621

In comparison with 1977, the biggest setback occured in Hersbruck (— 31 %), followed by Spalt (— 14,5 %), Tettnang (— 9 %) and the Hallertau (— 8 %). The Hersbruck area has already become so small that it has lost its importance on the world market.

The effects of market regulations on the cultivation policy are shown as follows:

	Hop Acreage Hallertau	Hop Acreage Fed. Republic
1966 — US-Hop Market Regulation	8.272 ha	10.996 ha
1971 — EC-Hop Market Regulation	12.571 ha = + 52 %	15.361 ha = + 40 %
1975 — largest German acreage	16.911 ha	20.211 ha
Increase against 1966	8.639 ha = + 104 %	9.215 ha = + 84 %
1976 — Retrograde development begins		
1978 — **Decrease** against 1975	1.899 ha = — 11 %	2.590 ha = — 13 %

Cultivation of Varieties

For 1978, the varieties cultivated are made up as follows:

Growing Region	Hallertau ha	%	Hersbruck ha	%	Hüller ha	%	Spalt ha	%	Tettnang ha	%	Northern Brewer ha	%	Brewers Gold ha	%	other varieties ha	%
Hallertau	2.435	16	2.809	19	1.514	10	11	—	—	—	5.679	38	2.171	14	393	3
Jura	263	51	89	17	34	7	—	—	—	—	44	9	79	15	3	1
Spalt	471	59	1	—	8	1	282	36	—	—	6	1	27	3	2	—
Hersbruck	84	50	66	39	2	1	—	—	—	—	11	7	6	3	—	—
Tettnang	270	24	8	1	—	—	—	—	831	75	—	—	—	—	—	—
Total	3.523	20	2.973	17	1.558	9	293	2	831	5	5.740	32	2.283	13	398	2

The **Hallertau variety** (formerly also called „mittelfrüh" = medium early) which is particularly propense to wilt, has very much diminished during the last years. Especially abroad one is not aware of the extent to which this variety rapidly decreases. The following survey shows the development of the last 8 years for the **Hallertau cultivation area** in % of the acreage under cultivation:

Variety	1971	1972	1973	1974	1975	1976	1977	1978
Hallertauer (mitelfrüh = medium early)	58 %	47,5 %	40,5 %	31,5 %	25,5 %	20 %	18,5 %	16 %
Hersbruck/Hüller	4 %	9 %	14,5 %	20,5 %	23 %	26,5 %	27,5 %	29 %
Aroma hops	62 %	56,5 %	55 %	52 %	48,5 %	46,5 %	46 %	45 %
Bitter hops (North. Brewer/ Brew. Gold)	37 %	41,5 %	44 %	47 %	49 %	51 %	51,5 %	52,5 %
Others (Record, etc.)	1 %	2 %	1 %	1 %	2,5 %	2,5 %	2,5 %	2,5 %
Hallertau	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Since it is to be presumed that the shown tendency will continue, the complete disappearance of this variety in later years can be anticipated. The increasing cultivation of equivalent aroma varieties in the Hallertau, as observed during recent times, takes into account the requirements of the market.

UNITED KINGDOM

Growth was delayed due to cold temperatures in March/April. Extremely favourable conditions in May made it possible to catch up again. Warm weather in August benefitted the ripening of the hops and the formation of bitter substances. In opposition to Continental hops, the English crop mostly had α-values above the average rate.

In spite of the considerably higher crop yield of some 40,000 Ztr. (2,000 t), not all forward contracts could be fully supplied, particularly those for the varieties Northdown and Challenger. The Hops Marketing Board was, however, able to create a compensation by alternative offers.

The newly introduced certification of hops caused some initial difficulties, as the drying and packing of hops is done by the producers. Therefore, the certification is effected only after taking over at the warehouses of the Hops Marketing Board.

The English forward contract system has held good and is to be maintained apart from some slight modifications.

Cultivation of Varieties

The acreage under cultivation decreased by some 78 ha compared with the preceding year. An expansion of the areas was only realized with the varieties Challenger, Northdown and Target and to a very small extent with WGV.

For 1978, the varieties cultivated may be broken down as follows:

County	Golding ha	W.G.V. ha	Fuggles ha	Bramling Cross ha	Challenger ha	Northdown ha	Northern Brewer ha	Bullion ha	Target ha	other varieties ha
Kent	271	305	58	390	198	165	34	133	871	403
Hampshire	1	—	2	—	39	121	36	7	—	3
Sussex	2	2	34	19	32	17	4	30	64	47
Herefordshire	88	—	435	—	325	412	150	72	—	10
Worcestershire	80	—	59	—	96	154	62	53	—	4
Brewer Growers	34	25	—	45	56	67	56	105	66	103
Total	476	332	588	454	746	936	342	400	1.001	570

FRANCE

ALSACE. The year 1978 was marked by heavy rains above the average and a lack of sunshine. The growth was behindhand since spring and could not catch up until the harvest. A warm period in August improved the ripening of the hops and the alpha content.

The picking was carried out in good weather, on 11. 9. 1978, however, the hop gardens not yet harvested were in some parts badly damaged by stormy weather. The quality was evaluated to be an average one in spite of the poorer α-values as compared with the preceding year.

Also in **FLANDERS,** the weather was mainly cool and wet; frequent anti-pest sprayings had to be made. Northern Brewer reacted better to the weather conditions than Brewers Gold, the yields of which were some 20 % below those of 1977. The picking began with some delay and was carried out in good weather. 80 % of the hops were alloted to class I. As regards alpha, the values of the preceding year were not fully reached.

Market Development

As a result of the smaller harvest, the contract part in Alsace increased to 80 % and in Burgundy to some 85 %, whilst in Flanders the advanced contracts only amounted to some 13 %. The brisk demand for aroma hops on the world market was thus mainly to the advantage of the Alsace growing area. The prices for **Strisselspalt,** which at the beginning of September were still offered at DM 420,—, suddenly went up to DM 490,— by the middle of the month. By mid-October, after the first rush had calmed down, the prices dropped to DM 430,— and last lots were traded in November at DM 420,—. All prices per 50 kg, free French border, excluding packing costs and value-added tax.

In Flanders the market continued dull, for export transactions the prices asked for were not an incentive, all the more so as the hops were not outstanding with regard to their bitter substances. The producers' prices were the following (per 50 kg prime costs):

Variety		1. 9.	15. 9.	1. 10.	15. 10.	1. 11.
Northern Brewer	FF	650,—	700,—	700,—	650,—	650,—
Brewers Gold	FF	450,—	500,—	500,—	500,—	500,—

At the beginning of April, 1979 the hops unsold were estimated to be 80 tonnes each of Northern Brewer and Brewers Gold.

Cultivation of Varieties

For 1978, the varieties cultivated are shown as follows:

Growing Region	Aroma Hops (Strisselspalt a. o.) ha	Brewers Gold ha	Northern Brewer ha	Record ha
Alsace	226	227	55	22
Flanders	1	200	80	—
Burgundy	9	43	5	—
Others	—	17	3	—
Total	236	487	143	22

The acreage under cultivation dropped by 97 ha, a result of the insufficient producers' prices. Since 1973, the regression even amounts to a total of 563 ha. For 1979, further 100-120 ha are reported for grubbing, 20 ha of which belong to Flanders.

With the exception of Brewers Gold, the 1979 and 1980 crops in **Alsace** are completely contracted.

BELGIUM

The weather situation in 1978 was very unstable. Warmer periods were frequently interrupted by coldness and rain, considerably impeding the control of diseases and pests. The variety Northern Brewer suffered particularly heavily from the weather conditions and remained behind the expectations as regards yield and bitter substances. Picking began with cool and rainy weather which, however, by mid-September became warm and sunny. The hops harvested later could therefore improve. In Aalst, the harvest was delayed so that most of the time there was good weather.

Quality. In Poperinge, 80 % of the hops were allocated to class I, in Aalst it was 75 %. While Northern Brewer were somewhat weaker in the α-content than in 1977, the Brewers Gold's content was higher.

Market Development

Owing to the generally higher price level, the Belgian farmers, too, were able to receive better prices. While aroma varieties were sold steadily, the bitter hops business was less active. The Aalst area was cleared by mid-October. In Poperinge, on the other hand, some 50 tonnes of hops (1.000 Ztr.) were still unsold by the producers by mid-March, 1979, a large proportion being Brewers Gold.

The purchase prices from farmers were not uniform as may be seen from the following tabulation (Poperinge/Aalst) per 50 kg prime costs:

Variety		1. 9.	15. 9.	1. 10.	15. 10.	1. 11.
Northern Brewer	BFr	5.000/5.250	5.000/5.250	5.250/5.250	5.000/4.500	5.000/4.000
Brewers Gold	BFr	4.000/4.000	4.000/4.000	3.500/4.000	3.500/3.750	3.500/3.000
Hallertau	BFr	6.000/6.500	6.000/6.750	6.750/6.750	6.000/6.750	6.000/—
Record	BFr	5.000/5.250	5.000/5.250	5.000/5.250	5.000/—	5.000/—

Cultivation of Varieties

All the varieties were affected by the heavy decline of acreage under cultivation. For 1978, the following picture results:

Growing Region	Northern Brewer ha	Brewers Gold ha	Record ha	Hallertau ha	Saaz ha	Fuggles ha	other varieties ha
Poperinge	243	306	6	33	—	—	11
Aalst-Asse	49	22	34	59	10	—	2
Vodelée	4	4	—	1	2	9	2
Total	296	332	40	93	12	9	15

Beside the areas named here, there is still a small hop acreage of some 8 ha in the province of Hainaut with 5 ha of Brewers Gold and 3 ha of Northern Brewer.

For 1979, further grubbings are announced which will be around 60 ha. With the Hallertau variety a slight increase is to be expected owing to the good 1978 price.

IRELAND

There were no changes of the acreage under cultivation and the varieties grown. The 1978 crop totalling 72.5 t was by 13.5 % smaller than the one of the preceding year, but it was an outstanding crop from the quality point of view. The bitter values of the Bullion and Northdown matched with the English ones; Fuggles and Northern Brewer, however, were substantially higher.

The whole crop is taken up by the brewing industry on the basis of contracts existing for many years.

CZECHOSLOVAKIA

During the whole vegetation period the weather was mainly unfavourable. Cold nights, low day temperatures and frosts in May inhibited the growth. Insufficient rains and the lack of sunshine produced smaller crop yields and a lower α-content of the hops. To this, damages caused by inundations of about 600 ha of hop acreage, were added. Thanks to prompt and successful combating measures, diseases and pests were held under control, so that a good quality could be harvested.

On the acreage, which was larger by 200 ha, a crop was harvested which was by 17.5 % lower than the one of the previous year. This fact, and the unusually high export rate of 70 % of the crop, made importations necessary in order to cover the domestic requirements.

The percentage of the 1979 crop under contract amounts to 95 %.

JUGOSLAVIA

SLOVENIA. Despite the cool and rainy spring, the weather was for the most part favourable for the growth of the hops. There were no damages by stormy weather and diseases, pests were combated in time. The picking began with one week of delay, a fact which had a positive effect on the α-content of the hops. 97 % of the crop was first class.

The demand from abroad for Styrian hops was very brisk, but free hops could only be offered to a small extent since the foreseen export quota was practically exhausted by advanced sales. Also for 1979, no more offers are possible.

BACKA. The 1977/78 winter lasted a long time. It was still cool and rainy in April and May, causing the appearance of downy mildew. In July, a more favourable weather set in and the hops were able to catch up again. Picking was somewhat delayed and was carried out in good weather.

Quality. 82 % of the hops were first class, and 16 % were class II. As a result of the unfavourable weather conditions, the 1978 crop was by 20 % lower than the previous year. 45 % of the crop could be exported. Most of the 1979 crop is already under contract.

POLAND

A predominantly unfavourable weather during the vegetation period brought about a 20 % setback of the crop compared with the preceding year. Stormy winds up to the strength of a hurricane and hail caused vast damages on an area of 300 ha. As a result of the weather conditions, harvesting — which at 60 % was made by machines — was delayed.

Quality. 42 % of the hops was graded as class I and 50 % class II. The α-values of the 78 crop were about 20 % below those of the previous year. Some 40 % of the crop were exported, so that for the fulfillment of the domestic requirements hops had to be imported.

From the total acreage under cultivation of 2.400 ha, 1.858 ha refer to the variety Lublin, 524 ha to Pulawy and 18 ha to Northern Brewer. For 1979, an area expansion of about 50 ha is foreseen.

Owing to the brisk demand for European aroma hops, the 1979 export quota is already fully booked out.

GERMAN DEMOCRATIC REPUBLIC

As in the other parts of Europe, the growth of hops suffered from the unfavourable weather conditions. While in some areas, rain caused erosion damages, the plants had even to be watered in other regions. In the southern part of the growing region, damages due to violent storms occurred. Harvesting was frequently hindered by rain.

The 1978 hop crop did not come up to the original expectations, neither from the **quality** point of view nor with regard to the quantity. 42 % could be graded as class I and II, 58 % were class III and IV.

On the whole, the cultivation area dropped by about 70 ha. For 1978, it is made up as follows:

Growing Region	Acreage ha	Yield to/ha	Crop to
Halle/Magdeburg	950	1,19	1.136,15
Erfurt	485	1,23	598,35
Dresden/Leipzig	614	0,97	594,70
Gera/Karl-Marx-Stadt	55	1,04	57,30
Total	2.104	1,13	2.386,50

As regards the varieties, the acreage under cultivation is composed of 930 ha Saaz and 1.174 ha Northern Brewer. With some 2.200 ha in 1979, the hop acreage will not be substantially enlarged. It is intended to become independent from the importation of hops.

HUNGARY

The cultivation area was expanded by some 50 ha. Aroma varieties are grown on some 45 % of the area, bitter hops on some 55 %. An average crop with good results could be harvested; it will, however, not be sufficient for the domestic requirements making it necessary to continue importing hops. At the moment, however, no essential changes of the acreage are projected. Yet, it is planned to lay an increasing emphasis on hops with high bitter content.

SPAIN

A spring which was spoilt by rain, and an excessively hot July/August were injurious to a normal development of the hops. Due to the prevailing weather conditions the hops, 95 % of which were picked by machines, were harvested prematurely. The crop yields and the α-content were only slightly better than in 1977. The quality division reads as follows: 97 % of the crop was graded class I, 3 % class II. The entire crop was taken up by the domestic brewing industry at the fixed prices.

The cultivation of the bitter variety H-3 is increasingly given preference to, while the aroma hops (Strisselspalt, Hallertau) only hold a negligibly small part, as is shown in the following table.

Varieties	H-3	H-7	Aroma varieties
Crop/tonnes = % of crop	1.330,7 63,6	751,2 36,0	7,8 0,4

During the recent years the acreage under cultivation has somewhat decreased by the grubbing of overage roots. In 1979, again up to 100 ha are planned to be newly cultivated. The sale of these hops is secured thanks to the Spanish marketing system.

PORTUGAL

The weather conditions were identical to those of the neighbouring Spanish cultivation areas. The vines had remained pointed and frequently had not attained the height of the trellises. Accordingly, only 205 tonnes were harvested altogether on the 118 ha **Braga** area and the 74 ha **Bragança** region. Also the alpha contents of the hops were unusually low.

AUSTRIA

MÜHLVIERTEL (UPPER AUSTRIA). On the unchanged area under cultivation covering 55 ha, a 20 % smaller crop (67.2 t) as compared with the previous year, was harvested. This result was attributed to the bad weather conditions and to frequent sharp winds. Harvesting was delayed for some days, nevertheless the bitter content was somewhat lower than in 1977. 97 % of the crop was class I. The whole crop is under contract.

Also with the varieties, there were no changes; Malling, Golding and various experimental varieties continue to be grown.

In 1978, the Government of Upper Austria granted an area premium of 3.000 shillings per hectare to the Mühlviertel hop farmers. By this measure, the bias of the competition, brought about by the granting of aids in the EEC-countries, is meant to be compensated in part.

Also in the **STYRIAN** area under cultivation, a smaller crop of only 68 tonnes was harvested. This represents a setback of 17 % as compared with the preceding year.

GREECE

The region of **IOANNINA** covering 50 ha merely produced 37.5 tonnes of hops. Only Brewers Gold are grown the yields of which are normally higher. The α-values were gratifyingly high again.

The entire crop was taken up by the national brewing industry. There are also contracts reaching over several years for a part of the hop production.

USA
Growth

Due to unusual excessive moisture during the 1978 spring, downy mildew was considerably in evidence in **OREGON** and particularly in the **Yakima** valley. Normally, this disease does not represent any problem in the USA for climatic reasons. The last time that downy mildew appeared to a considerable extent in these two regions was in 1949, and produced, at that time, a crop loss of some 30 %.

In June, the weather improved and the growth of the hops normalized. In Oregon and in California, too, the yields remained below the average obtained throughout many years, while in Washington and Idaho the crops turned out to be better than expected. In the state of Washington even the second-best result of the last 30 years could be obtained. On the other hand, the Californian crop was particularly disappointing both with regard to the quantity and bitter content.

Despite some downy mildew damages, the 1978 crop was of good **quality,** even though the bitter values were below those of last year.

Market Development

The unfavourable crop prospects in Europe enlivened the American market already by mid-August. In the four states altogether, the part of unsold hops of the 1978 crop was less than 10,000 bales (1 bale = 200 lbs or 90/91 kg). By mid-September, the remaining 1,500 bales of Yakima Clusters of the 1977 crop were sold. By November, the offer of 1978 hops had gone down to some 5,000 bales and in January, 1979 the first-hand market was practically cleared.

Below, the development of prices for **Yakima Clusters,** 1978 crop, per lb (0.45359 kg), prime costs plus premium:

	July 1978	15. 8.	1. 9.	15. 9.	1. 10.	15. 10.	1. 11.
$	—,75	—,80	—,80	—,90	1,—	1,—	1,—

The 1,000 bales of 1978 hops brought into the Reserve Pool, were released for sale in September at 82 cents plus premium, irrespective of the variety, and were immediately taken up by the trade.

From the approximately 5,200 bales of old hops of the 1974/75/76 crops still kept in the Pool, only 200 bales were sold at the fixed price of cents 73 plus premium, during the reference period.

Export transactions in 1979 crop were for a large part carried out by purchasing back hops from overstocked breweries. As a result of this, the brewery stocks were reduced to the lowest level since years.

Contract Market

The substantial reduction of hop inventories as well as the brisk beer business in the South and Central American countries and in the USA, caused the brewing industry to become more active on the advanced contract market already by the beginning of 1979. The reviving interest for aroma hops and the far-reaching sellout of European varieties in the 1979-1981 crops, accelerated an energetic upward price movement which was still furthered by the persistent increase in costs.

At the beginning of June, 1979 the **contract prices** for future crops, were the following (per lb = 0.45359 kg, ex warehouse of growing region, prime costs plus premiums):

Variety			1979	1980	1981	1982	1983
Clusters	Yakima	$	1,30	1,30	1,30	1,35	1,40
Cascade	Yakima	$	1,20	1,25	1,30	1,35	1,40
	Oregon	$	—	1,35	1,40	1,45	1,50
Bullion	Yakima	$	—	1,35	1,35	1,40	1,45
	Oregon	$	—	1,35	1,40	1,45	1,50
Fuggles	Oregon	$	—	1,60	1,65	1,70	1,85

The substantial increase in prices come into effect since January, 1979 represents rather an unusual occurrence for the US market. Already now, with normal crops, the percentage under contract amounts to:

1979	1980	1981	1982	1983
98%	90%	67%	45%	20%

For 1979, the selling quota was raised to 105 % of the basic quota, an expansion of the cultivated acreage of about 1 % having been taken into consideration.

Varieties planted

The standard for the cultivation of varieties is given by the precontracted future requirements of the breweries in determined hops for years ahead. In recent times the trend towards low calorie (light) beer, as well as towards premium beers is becoming stronger. Both require a revision of the hopping ratio because, for premium beers particularly, a larger portion of aroma hops is needed. On account of the lower bitter content of these hops, the hop rate, which had been steadily decreasing, is going up again in the USA since the last 1½ years.

In consequence, in the future there will be a growing demand for aroma hops, which mostly are imported, as well as for high bitter hops. Whereas the latter (Bullion, Brewers Gold, Galena) are already increasingly grown, on the aroma sector such development has only just started. Since hardly an expansion of the cultivated acreage has taken place, varietal changes were mainly to the detriment of Clusters. This is regrettable, as this variety enjoys an excellent reputation at home and abroad owing to its good characteristics (constant, middle high alpha content and best keeping).

For 1978, the varieties cultivated are made up as follows:

Variety	Washington ha	Oregon ha	Idaho ha	California ha	Total ha
Clusters	6.572	35	485	587	7.679
Talisman	—	37	324	—	361
Bullion	711	521	—	—	1.232
Brewers Gold	112	323	15	—	450
Comet	233	2	1	7	243
Cascade	996	375	170	—	1.541
Fuggles	—	856	—	—	856
others	19	67	87	—	173
Total	8.643	2.216	1.082	594	12.535

Though the variety Clusters is still the dominant one, its percentage has dropped by 2% to 61 % of the total acreage since 1977. Also the cultivation of Cascade has decreased by 2%, but the breweries' interest in this aroma variety has revived.

In order to meet the increasing requirements of aroma hops from US production, on 27. 3. 1979 the Hop Administrative Committee arrived at the following decisions:

1. The additional production quota covering 1 million lbs of Fuggles, running until 1982, will be prolonged until 1985.
2. A further additional quota covering 2.5 million lbs of Fuggles and valid until 1985, will be granted to farmers willing to cultivate aroma hops, a period of declaration having been stipulated until 15. 7. 1979.

Hop producers who apply for new cultivation areas according to 2., must have planted the hops by 15. 6. 1980. They also have to commit themselves to let an amount of cents 5/lb per year and hops harvested flow into a special fund for all hop farmers.

CANADA

Apart from attacks of downy mildew in spring 1978, the hops could develop under normal conditions. During the harvest it rained incessantly which considerably delayed the picking.

The crop which was by some 3 % larger, was graded of average **quality** and corresponded to that of the preceding year as regards the alpha content. The sale is secured thanks to corresponding contracts. Therefore, there are practically no changes, neither with regard to the acreage under cultivation nor in respect of the varieties grown.

ARGENTINA

On an unchanged cultivation area of some 340 ha, 250 tonnes of hops were harvested. With an average α-content of 5.5 %, the quality was graded better than in the previous year. As a result of the decreasing turnover of beer, the crop could not entirely be sold in the country.

Because of the unsatisfactory yields per hectare, cultivation trials are made with different imported European and American varieties. Among them, there is also the high bitter variety Pride of Ringwood.

JAPAN

Hops are being grown in three regions: The smallest one with 17 ha is on the Isle of Hokkaido, the two others are on Honshu (Hondo). The most important one is in the northern part of the island with an area of 1.084 ha, and in the Nagano district there are 133 ha of hop acreage.

The 1978 crop was satisfactory both with regard to quantity and quality. 91.4 % of the hops were class I. With 98 % of the entire cultivation area, the early aroma variety Shinshuu-Wase continues to be dominant. Thanks to the existing cultivation contracts with breweries, there are no selling problems.

INDIA

According to recent information, in the valley of **Kashmir** hop are being grown on 100 ha, the crop of which amounted to some 70 tonnes in 1978. Primarily late Clusters imported from America, are cultivated. The most acute problem continues to be the lack of kilns.

At the Srinagar Research Laboratory breeding tests are performed in order to develop new hop varieties which are better adapted to the local climatic and soil conditions.

Within the framework of a four-year plan, the Indian government intends to reduce the increasing consumption of alcohol step by step until total prohibition. It is not known whether beer is affected by this measure.

TURKEY

The 405 ha hop acreage of the **BILECIK** region consist of 40.5 ha Brewers Gold and 364.5 ha late Clusters, which yielded a crop of 280 tonnes. Harvesting is still done by hand only. The average α-content was between 6 and 8 %.

The brewing industry of the country is obliged to take up the hop production prior to import licences being authorized in order to cover the remaining requirements. There are no differences in price for varieties or qualities.

The cultivation trials with Strisselspalt hops have been given up again as the results did not meet with expectations.

NEW ZEALAND

In January and February, 1978 only about 10 % of the usual amount of rain fell, the weather being very hot at the same time. Only those gardens which could be irrigated, got over this period without detrimental consequences. The appearance of red spider was furthered by the weather conditions.

The home-bred variety, rich in bitter substances, called Roborgh Superalpha, has already attained 15 % of the cultivation area. Elder hop gardens are predominantly changed to this new variety.

The entire hop production is under contract with the domestic brewing industry.

SOUTH AFRICA

In 1978, the cultivation area covered 208 ha, on which 110.8 tonnes of hops were harvested. Despite insufficient rain, the growth was normal as by way of irrigation a compensation could be brought about. Diseases and pests, which were very quickly brought under control, only appeared to a very small extent. During harvesting it was very hot, a fact which led to discolouring of the hops.

The **quality** of the crop was excellent, 85 % were graded class I, 8 % class II and 7 % were judged to be class III due to the discolouration. The entire hop production is under contract with the breweries.

Only bitter hops are cultivated,

89 ha of Southern Brewer	21 ha of Golden Cluster and
85 ha of Pride of Ringwood	13 ha of other varieties.

It is intended to replant some 7 ha Pride of Ringwood with Southern Brewer, despite their higher α-content, but not to expand the cultivation area.

1979 Crop

From the Southern Hemisphere, where the crop is harvested in February/March, the following reports are available:

ARGENTINA

From the 1978 crop there are still some 24 tonnes of hops unsold at the producers' stocks. The new 1979 crop, which has turned out to be slightly better in quality than last year, is given as some 225 tonnes.

AUSTRALIA

Both in **VICTORIA** and in **TASMANIA** favourable weather conditions were prevailing in 1978/79 so that a plentiful crop with very good quality features is expected. The crop estimate, shortly before the beginning of the picking in early March, 1979, reveals the following figures:

Tasmania	(585 ha)	1.235 t
Victoria	(330 ha)	670 t
Total	(915 ha)	1.905 t = + 2.5 % compared with 1978.

The 30 ha in the north-east of Tasmania, affected by hail in November, 1978, had well recovered so that only a small loss of crop occurred.

Only the high bitter variety Pride of Ringwood is cultivated, which due to its constantly high α-content of some 10 %, has good chances of exportation.

Growth 1979

The not extremely cold winter on the European continent went on for quite a long time. Heavy snow falls and frost lasted until the beginning of May and delayed the spring work in the hop gardens. This brought about a setback in growth by a good two weeks. Not until the middle of May did a reversal of the weather occur with sometimes hot midsummer temperatures.

FEDERAL REPUBLIC OF GERMANY. As it is estimated, some 250 ha will be grubbed in the **Hallertau** and 600-700 ha will not yield this year because of change of varieties. The full yielding area of the Hallertau is therefore supposed to be only slightly above 14.000 ha.

USA. There were excellent growing conditions in the states of **Washington** and **Oregon.** In the Yakima valley acreages attacked by downy mildew during the previous year, it was frequently realized that the rootstocks of the hops diseaded, had died out. There is still uncertainty as to the extent of the damage occurred.

Cultivation Area 1979

According to the figures mentioned in March, 1979 by the International Hop Production Board, in 1979 a slight expansion of the world hop acreage by some 200 ha as compared with 1978, is to be expected. The grubbings in the European Community countries are offset by expansions of hop acreage, primarily in the USA and in Eastern Europe. In detail, the following figures are cited:

	Increase		Decrease
USA	200 ha	Fed. Rep. of Germany	500 ha
Jugoslavia	30 ha	France	135 ha
Poland	232 ha	Belgium	60 ha
GDR	96 ha	England	20 ha
Spain	100 ha		
	658 ha		715 ha

There is, however, the fact that in 1979 some further 800 ha will not yield in the EEC due to changes in varieties.

Nuremberg, June 15th, 1979 **JOH. BARTH & SOHN**

1 ha = 2,934 bayr. Tagwerk		1 bayr. Tagwerk	= 0,341 ha
1 ha = 2,471 acres		1 acre	= 0,405 ha
1 hl = 100 l =	26,42 gall = 0,8523 bbl (USA)	1 bbl (USA) = 31 gall = 1,1734 hl	
	22,01 gall = 0,6114 bbl (Brit.)	1 bbl (Brit.) = 36 gall = 1,6356 hl	

1 metr. ton = 1,000 kg = 20 Ztr. = 2,204.6 lbs

1 Ztr. = 50 kg = 110,23 lbs	1,102 cwt (USA)	1 cwt (USA) = 100 lbs = 45,359 kg	
	0,984 cwt (Brit.)	1 cwt (Brit.) = 112 lbs = 50,8 kg	

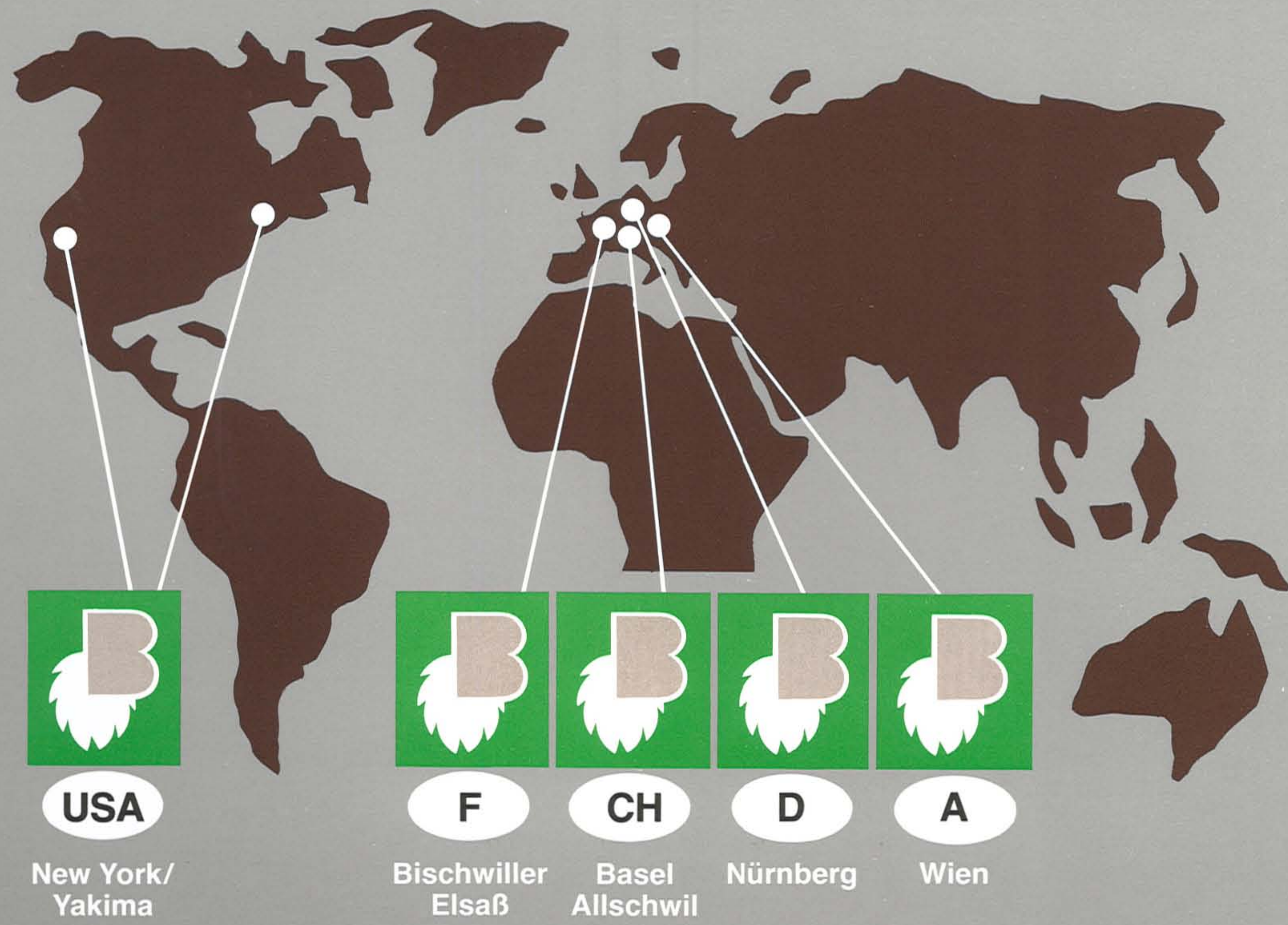
1 cental (Brit.) = 100 lbs = 45,359 kg = 0,9072 Ztr.

1 kg = 2,20462 lbs   1 lb = 0,45359 kg

Conversion of thermometer degrees in Fahrenheit and Celsius:

$$86^\circ\ F = \frac{(86\text{-}32)\ 5}{9} = 30^\circ\ C \qquad 30^\circ\ C = \frac{30 \cdot 9}{5} + 32 = 86^\circ\ F$$

The publication of our Hop Report involves obtaining material from sources throughout the world. We wish to express our gratitude to all who assisted us.


USA
New York/
Yakima
F
Bischwiller
Elsaß
CH
Basel
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Wien

Are advanced contracts worth-while?

Since 1973, the spot market hop prices seem to speak against the conclusion of advanced contracts. A comparison of the spot and contract prices since 1968 shows, however, that advanced contracts are not more unfavourable, provided they are concluded according to a „combined system". For the spot market prices influence the contract market, the price fluctuations of which are considerably lower. That is shown in the following graph:

A = spot market by October/November after the harvest
B = 100 % contracts with overlapping validity
C = combined system, i.e. 60 % contracts with overlapping validity and 40% purchases on the spot market after the harvest

per 50 kg **Hallertau aroma hops,** packed goods ex stocks, excluding value-added tax.
1979: Own market evaluation.

In the coming years 1979 and 1980 the relation is supposed to change even more in favour of the advanced contracts.

Advanced contracts are worth-while, as

— the evolution of prices progresses more steadily
— You can watch the market prior to making any decision of purchasing
— You can chose the most appropriate time for the purchase
— You can budget the expenses for years ahead
— Advanced contracts secure quantities and varieties.

Our proposal: Coverage according to the **combined system, i.e.** some **60 % purchase of part quantities by contracts with overlapping validity and the remaining requirements on the spot market.** Thus you make an economic and cost-conscious decision.