# Joh. Barth & John

#### **HOPS SINCE 1794**

#### HOP FARM BARTHHOF HALLERTAU

TELETYPE 06/22030 CABLE ADDRESS: BARTHSOHN NÜRNBERG 8500 NÜRNBERG 2

P. O. B. 331 TELEPHONE 44 45 51 / 53

August 15th, 1963

### **Hop Report 1962/63**

The short but intense Cuba crisis was solved peacefully, so that the world economical situation was not disturbed. In the U.S.A. a decrease of taxes is under discussion in order to stimulate the economy.

Economical Situation

The economical growth in Europe has been retarded. Discussions in Brussels regarding the entry of Great Britain into the E. E. C. were terminated without result by the end of January 1963.

In the Federal Republic of Germany the favourable balance of Foreign Trade has decreased to DM 3.5 billions in 1962 as against DM 6.6 billions in 1961. The balance of payments as well as increased contributions (assistance to countries of development) led to a real deficit of DM 1.3 billions in the basic balance of 1962 as against an excess of DM 2.8 billions in 1961.

World production of beer in 1962 showed an **Increase** of about 13.6 million bbl. as compared to 1961. The percentage rates of the Increase are as follows: Western Europe +6.7%, Eastern Europe +3.2%, North America +2.3%, Central and South America +3.3%, Africa +1.2%, Asia +15.4%, Australia and Oceania +4.4%.

Production of Beer

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1 ha = 2.934 bayr. Tagwerk
                                                                                                                                                                                                                                           1 bayr. Tagwerk = 0.341 ha
                                                                                     1 ha = 2.471 acres
                                                                                                                                                                                                                                          1 acre
                                                                                                                                                                                                                                                                                                                     = 0.405 \, ha
                                                                                    1 Liter = 0.2642 gall. (USA) 0.2201 gall. (Brit.)
                                                                                                                                                                                                                                      1 gall. (USA.) = 3.7853 Liter
                                                                                                                                                                                                                                     1 gall. (Brit.) = 4.5435 Liter
                                                                                                                 \begin{array}{lll} 26.42 \; \text{gall.} = 0.8523 \; \text{bbl.} \; \text{(USA.)} & 1 \; \text{bbl.} \; \text{(USA.)} & = 31 \; \text{gall.} = 1.1734 \; \text{hl} \\ 22.01 \; \text{gall.} = 0.6114 \; \text{bbl.} \; \text{(Brlt.)} & 1 \; \text{bbl.} \; \text{(Brlt.)} & = 36 \; \text{gall.} = 1.6356 \; \text{hl} \end{array}
                              1 hl = 100 Llter =
                                                                                                                          1 \text{ kg} = 2.20462 \text{ lbs}
                                                                                                                                                                                                                                           1 \text{ bl.} = 0.45359 \text{ kg}
                                                                                                                         1 shortton (sht) = 2000 lbs. = 907.185 kg
                                                                                                                                                                                                                 = 2240 lbs. = 1,016.048 kg
                                                                                                                         1 longton (lgt)
                                                  1 metr. Tonne = 20 Ztr. = 1000 kg = 1.10231 shorttons = 0.98419 longtons
1 \ \text{Ztr.} = 50 \ \text{kg} = 110.23 \ \text{lbs.} = \begin{array}{l} 1.102 \ \text{cwt.} \ (\text{USA.}) \\ 0.984 \ \text{cwt.} \ (\text{Brit.}) \end{array} \begin{array}{l} 1 \ \text{cwt.} \ (\text{USA.}) \\ 1 \ \text{cwt.} \ (\text{Brit.}) \end{array} \begin{array}{l} = 100 \ \text{lbs.} = 45.36 \ \text{kg} = 0.9072 \ \text{Ztr.} \\ 1 \ \text{cwt.} \ (\text{Brit.}) \\ 1 \ \text{cwt.} \ (\text{Brit.}) \end{array} \begin{array}{l} = 100 \ \text{lbs.} = 50.8 \ \text{kg} = 1.016 \ \text{Ztr.} \\ 1 \ \text{cwt.} \ (\text{Brit.}) \\ 1 \ \text{cwt.} \ (\text{Brit.}) \end{array} \begin{array}{l} = 100 \ \text{lbs.} = 45.36 \ \text{kg} = 0.9072 \ \text{Ztr.} \\ 1 \ \text{cwt.} \ (\text{Brit.}) \\ 1
                                                      1 quarter (qr) = 400 lbs. = 181.44 kg (barley)
                                                                                                                                                                                                                                                                                                       1 \text{ Ztr.} = 0.27555 \text{ gr.}
                                                                                                                                     48 lbs. = 21.77 kg (barley, malt) 1 Ztr. = 2.2965 bu. 56 lbs. = 25.4 kg (corn, milocorn) 1 Ztr. = 1.9685 bu.
                                                      1 bushel (bu) =
                                       DM 1.-- = US$ --.25 / DM 4.-- = US$ 1.-- / US$ 2.80 = DM 11.20 = £ 1.--.-
                                                        1 mm precipitations = 1 Ltr. of water per m^2, 1 mm = 0.04", 1" = 25 mm
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Production of Beer 1962								
Country	1000 bbl. of 31 g	gall. each	Country	1000 bbl. of 31 gall. eac				
Germany W. 52,977 East*) 16,192 England USSR*) France Czechoslovakia Belgium Poland Austria Spain*) Denmark Netherlands Hungary Switzerland Italy Ireland*) Sweden Roumania*) Jugoslavia Bulgaria*) Finland Norway Greece *Luxembourg Portugal*) Malta*) Iceland Europe	69,169 38,935 22,754 15,515 13,380 12,349 5,597 5,015 4,261 3,815 3,379 3,366 3,356 3,221 2,963 1,781 1,662 1,523 937 903 771 422 380 354 27 14	215,849	b. f	2,062 691 511 511 354 264 213 212 196 170 164 86 85 85 77 68 68 61 41 34 17 16 8	353,845 5,994			
U. S. A. Canada Mexico Brazil*) Columbia Venezuela*) Argentine Peru Chile Cuba*) Uruguay*) Puerto Rico*) Ecuador Panama Dominican Republic*) Jamaica El Salvador Bolivia*) Guatemala*) Honduras Costa Rica*) Trinidad Paraguay Nicaragua*) Martinique America		137,996	Vietnam China*) Singapore Turkey Indonesia Israel*) Hongkong India South-Korea Thailand Formosa*) Iran*) Lebanon Ceylon Iraq*) Cyprus*) Syria*) Pakistan*) Asia  Australia New Zealand Tahiti New Caledonia Australia/Oceania Total	9469 426 321 290 164 153 124 98 74 68 65 60 51 42 39 34 21 17	16,140 12,008 387,987			
America c. f		137,996 353,845	Total		387,987			

Beer Output in Western Germany

Output of beer in Western Germany during the calendar year 1962 

51,382,398 bbl. 1,594,280 bbl. Total

52,976,678 bbl.

These figures include 48,955 bbl. delivered tax-free to the occupation forces (1961 = 74,765 bbl.) as well as exports and other sales against foreign currency totalling 1,086,543 bbl. (1961 = 1,032,656 bbl.).

### Crop 1961 (Supplement)

Complete figures of imports and exports of hops crop 1962 during the period from September 1st, 1961, to August 31st, 1962, can now be stated as follows:

	Import	Export
Germany	5,783,989 lbs	10,245,879 lbs
Belgium England	3,329,828 lbs 2,498,032 lbs	1,322,540 lbs 1,913,152 lbs
U. Š. A	4,228,864 lbs	18,280,764 lbs

As a consequence of the smaller crop in 1961, final available stocks of this crop have been sold at increasing prices. Free supplies of hops were scarcely obtainable on the world market before the new crop 1962.

The unsold stocks of hops crop 1960, which had been taken over during the summer of 1961 with the assistance of the State of Bavaria, could be sold as well. The loan of DM 1,500,000.— granted to the G. H. V. Z. (Genossenschaftliche Hopfenverwertungszentrale) by the Bayerische Staatsministerium für Ernährung, Landwirtschaft und Forsten has been paid back. Prices obtained for the hops of crop 1960 allowed an additional payment of DM 40.45 per 50 kilos net to farmers.

Unsold hops Crop 1960 in Germany

### **Crop 1962**

The vegetative development of the hops in 1962 developed within several periods of intensely oscillating climatic conditions. The late winter and spring of 1962 brought Frost as well as cold and rainy weather, which retarded Spring work. The weather continued variable, rainy and too cool with occasional **Night Frosts** until June. The fine summer weather starting at that time stimulated a remarkable luxurious growth in the retarded hop yards. The delay of growth during the preceding period was set off sometimes in a surprisingly quick way. It was regrettable that the first half of the month of July became once again too cool which interrupted the fine development. Warm and sunny weather during the second half of July as well as during August improved the growth once again despite not always sufficient precipitations. Generally, however, passing hopes towards a big crop had been abandoned — a result not much greater than the year before seemed to be indicated. The retarded growth resulted in a somewhat later harvest which, however, benefited the total result.

Growth of the Hops Crop 1962 in Germany

1962	March	April	May	enul	July	August	Sept.
Precipitations per month (mm)	58	43	104	41	62	64	67
Monthly average of air temperature <sup>0</sup> Celsius	0.2	8.1	9.9	14,0	15.8	16,7	11.8
Maxima of air temperature <sup>0</sup> Celsius	14.1	26.1	26.1	30,6	32,6	32.6	29,6
Minima of air temperature <sup>0</sup> Celsius	-17.4	<del>-3</del> .8	3.9	1.4	2.6	2.6	0.5
Monthly average of relative humidity %	80	72	80	69	75	76	80
Other data:							
Snowfall Rain and snow Thunderstorm Hoarfrost	5 days 5 days — 12 days	1 day 6 days 2 days 3 days	1 day 2 days 1 day 2 days	4 days 4 days		1 day	— 2 days 5 days

HALLERTAU. Owing to the unfavourable weather in the spring, the Uncovering and Cutting was in full swing only during the first half of April 1962. The plants had wintered well, but showed a weak growth as a consequence of the weather. The development improved under warmer weather by the end of April. At that time, spring work had been practically finished. It became necessary to spray early against Downy Mildew.

### Acreage, Yield and Production 1961 and 1962

Acreag	e, rielu	anu Fr	Jaucaon	1961 and	1962	
	Acreage	Yield	Production	Acreage	Yield	Production
	1961 Acres	Pounds per acre	1961 Pounds	1962 Acres	Pounds	1962 Pounds
	ļ	<u> </u>			per acre	
Hallertau	14,188 2,234	1,487 1,150	21,097,912 2,569,351	14,767 2,271	1,776 1,134	26,223,497
Hersbruck	1,245	876	1,090,836	1,203	1,009	1,204,704
Jura	415	1,263	524,144	420	1,751	735,234
Bavaria	18,082 1,769	1,398 1,489	25,282,243 2,634,387	18,661 1,767	1,647 1,530	30,737,636 2,703,501
R.H.W.	274	1,136	311,400	250	1,082	270,394
Baden	64	1,299	83,113 70,106	62 54	1,207	74,846
Rheinpfalz	20,243	1,298 1,402	28,381,249	20,794	1,078 1, <b>628</b>	58,201 33,844,578**
	4,942	436	2,153,674	5,152	630	3,245,171
	4,942	430	2,155,074	16,284		
Saaz (Zatec)	]			3,632	727 855	11,840,576 3,104,738
Other Districts				890	782	696,323
Czechoslovakia	20,581	630	12,964,371	20,806	752	15,641,637
Alsace	2,718	1,334	3,626,567	2,595	1,104	2,865,980
Dep. Côte d'Or Northern France	235 445	797 867	187,391 385,805	232 383	713 1,209	165,345 462,966
Lorraine	37	1,192	44,092	30	919	27,558
France	3,435	1,235	4,243,855	3,240	1,087	3,521,849
Alost	717	1,153	826,725	741	1,339	992,070
Poperinghe	1,236	1,249	1,543,220	1,310	1,262	1,653,450
Vodelée	3 002	900	44,092 <b>2,414,037</b>	49 <b>2,100</b>	1,125 1,286	55,115 2,700,635
Belgium	<b>2,002</b> 5,696	1,206	6,848,810	5,589	1,174	6,562,764
Slovenia	3,464	1,202	3,533,974	3,588	1,174	5,183,014
Jugoslavia	9,160	1,133	10,382,784	9,177	1,280	11,745,778
Austria	247	1,250	308,864	259	990	256,285
Galicia	605	481	291,228	554	695	384,813
León	1,364	610	832,347	1,611	769	1,239,536
Asturias	294 15	417 272	122,686 4,079	319	624	198,965
Spain	2,278	549	1,250,340	2,484	734	1,823,314
Switzerland	25	1,102	27,558	22	1,022	22,487
Roumanla	1,236	713	881,840*)	1,977	368	727,518
	2,224	446	992,070*)	2,224	446	992,070 *
Bulgaria	<del> </del>	561	970,024*)		382	<del>                                     </del>
Hungary	1,730			1,730	<u> </u>	661,380
Poland	5,802	753	4,367,313	5,757	831	4,783,982
USSR	29,652	446	13,227,600*)	29,652	446	13,227,600 *
Continent	103,557	797	82,565,579	105,374	884	93,194,284
Kent	10,835	1,147	12,431,519 826,064	11,196	1,428	15,988,972
Hants	578 119	1,429 1,164	138,559	605 116	1,647 1,327	996,700 153,881
Sussex	1,759	1,118	1,967,385	1,784	1,439	2,567,036
Hereford	4,339 1,994	1,162 1,198	5,042,471 2,388,684	4,490 2,071	1,521 1,584	6,829,300
Other Counties	54	1,596	86,200	54	1,631	88,073
England	19,678	1,163	22,880,882	20,316	1,472	29,904,297
Europe	123,235	850	105,446,461	125,690	979	123,098,581
Washington	12,800	1,570	20,096,031	17,999	1,410	25,380.127
Oregon	3,000	1,430	4,290,041 5,596,046	3,800	1,380	5,244,082
California	3,899 3,200	1,435 1,710	5,596,046 5,472,038	<b>4</b> ,099 3,400	1,710 1,940	7,011,069 6,596,053
U.S.A	22,899	1,548	35,454,157	29,298	1,510	44,231,331
Canada	998	1,299	1,296,856	1,028	1,575	1,618,728
Victoria	457	1,700	776,901	457	1,688	771,610
Tasmania	1,413	1,995	2,819,132	1,470	1,930	2,836,769
Australia	1,870	1,923	3,596,033	1,927	1,873	3,608,379
New Zealand	581	1,429	830,142	534	1,663	888,123
Japan	2,461	1,411	3,471,363	3,109	1,174	3,649,274
Manchuria	247	402	99,207*)	247	402	99,207*
Northern-Korea	1,236	143	176,368*)	1,236	143	176,368*
Argentine	630	525	330,690*)	726	571	414,465
South Africa	264	835	220,460*)	274	582	159,393
Total	154,421	977	150,921,737	164,069	1,085	177,943,849
*) Estimate **\	Official Wold	at lanuary ORI	n 1963			

<sup>\*)</sup> Estimate

<sup>\*\*)</sup> Official Weight January 25th 1963

The changeable but generally wet and cold weather in May resulted in unequal growth of the plants. The hop yards were carefully tended and showed a healthy stand, but growth was retarded. Warmer weather starting by mid-June benefited the plants, but there was no constant development as temperatures were too low at night. Growth improved only by the end of that month under warmer weather and the plants had offset the former delay by mid-July despite occasionally changing climatic conditions. Part of the hop yards had already surpassed the height of the trellises, but the general aspect of the plants remained unequal. The vines had less foliage than normal, but showed many Laterals distributed over their entire length and it was especially remarkable that the number of laterals on the vines was greater than the year before.

First **Burrs** appeared in mid-July and the set developed well under fine summer weather. These conditions prevailed until the month of August so that the **Formation** of the **Cones** could develop well under welcome rainfalls. The hop yards showed a healthy and especially improved stand as compared to former expectations. The formation of the cones as well as the **Ripening** of the hops went on under good conditions until the start of the harvest at the beginning of September.

Quality. The Hallertau hops, crop 1962 showed unequal cones of small to middling size. The colour was green to greenish-yellow and Wind Whipping was not rare. The light lupulin of good aroma was not so plentiful as the year before. Leaves and stems were to be noted as a result of machine picking.

SPALT. Unfavourable weather retarded Spring Work. The plants came well out of dormancy but the growth of the shoots was weak. Spring work was finished during the second half of April. The plants were off to a generally good start until mid-May under continuously changeable weather. Fleas had to be controlled locally. The weather turned cool in mid-May once again and the vegetative development was hampered especially by low night temperatures. The stand of the hop yards was unequal but early cut gardens generally showed a somewhat better aspect.

Warmer weather starting in mid-June benefited growth. The plants showed a considerably improved stand but weather conditions during the first half of July turned once again to colder temperatures. **High Winds** occasioned damages especially on laterals.

The plants could recuperate only during the second half of July under warmer weather. The general aspect of the hop yards was satisfactory. The plants had reached the height of the trellises and showed some overhang. First **Bloom** was to be noted in early locations. The warm weather continued during August. Hop yards generally were rather unequal but bloom was plentiful. The **Formation** of the **Cones** as well as the **Ripening** developed slower than usual as a result of dry weather by the end of August. This lack of precipitations as well as high winds resulted in a decrease of crop expectations shortly before the harvest. **Picking** was general by mid-September.

Quality. The cones of the Spalt hops crop 1962 showed middling size in general but were somewhat unequal. The colour was yellowish-green to green and Wind Whipping was noted. In some cases the hops showed seeds. Light lupulin was not very plentiful but had a good aroma. The picking of Spalt hops is not yet quite satisfactory.

TETTNANG. Only in mid-April, when the weather turned warmer, was it possible to tend generally to the Spring Work. The plants were off to a good start under passing warmer weather by the end of April. Climatic conditions turned colder, however, during May and there was a pronounced lack of sunshine. Generally, growth was retarded against normal conditions. This weather continued until the middle of June and the plants showed a satisfactory growth only at that time under fine summer weather. Hails occasioned only small damages in some hop yards.

The weather became too cool once again at the beginning of July and the average stand of the hops was still retarded. The hop yards showed a rather unequal aspect. Urgently needed warmer weather and welcome rainfalls benefited growth during the second half of July. The plants showed a good growth of Laterals which, however, started only at the middle of the vines. Overhang was to be noted in many hop yards and the plants were healthy. Fine summer weather and rainfalls continued during August. Bloom was distributed over the entire length of the vines. The favourable weather benefited both the Formation of the Cones as well as the Ripening of the hops.

Quality. Tettnang hops crop 1962 had well grown cones of yellowish-green colour with occasional wind whipping. Lupulin of light colour and fine aroma was amply present. The picking of the Tettnang hops was good.

HERSBRUCK GEBIRGE. During the first half of April 1962, the weather continued with almost wintry aspects. Spring Work could be finished only during the second half of that month but the hops had a good start under occasionally warm weather.

The month of May was too cold and did not favour the development. Preventive sprayings against **Downy Mildew** became necessary. The cold and rainy weather continued until June. Generally, the growth of the plants was retarded and the hop yards showed a very unequal aspect.

Warmer weather beginning by the middle of June together with welcome rainfalls benefited the growth. A short cooler period at the beginning of July was followed by warmer climatic conditions so that the hop yards could develop better. The general stand of the hops, however, remained unequal and the formation of Laterals was not always satisfactory. First Burrs were noted around July 20th.

Early varieties were in **Full Bloom** during the first half of August under fine summer weather whereas late varieties showed first bloom. The hops had visibly improved but a heavy **Hail** during the night of July 26th/27th occasioned damages on about 160 acres of hop yards. Under continuing good weather, the **Formation** of the **Cones** was proceeding on early varieties by the end of August, whereas late varieties went from bloom to the formation of the cones at that time. Further development of the hops as well as the ripening benefited from favourable weather conditions until harvest.

Quality. Hersbruck hops crop 1962 had small to middling sized cones, were somewhat coarse in growth and some seeds were occasionally noted. The colour was generally yellowish-green, not always uniform and showed wind whipping. Lupulin was not so amply present as usual, it was of light colour but the aroma was less pronounced than usual. The Picking of Hersbruck hops was sometimes rather unsatisfactory, so that the hops showed an excessive percentage of leaves and stems.

Verification of the hop acreage in 1962, resulted in the following figures:

German Hop Acreage 1962

	1939	1962				
Districts	Acreage acres	Existing acreage acres	Additional acr. acres	Total acres		
Hallertau Spalt Hersbruck Jura Tettnang *) Aischgrund/oth. distr. Bavaria	11,317 2,276 2,118 200 — 200 16,111	14,067 2,197 1,176 405 27 15	699 74 27 15 — 815	14,766 2,271 1,203 420 27 15 18,702		
Wurttemberg/RHW . Tettnang **) Baden Baden-Wurttemberg	1,223 1,636 440 3,299	247 1,712 59 2,018	2 17 2 21	249 1,729 61 2,039		
Pfalz	151 151	54 54		54 54		
Germany	19,561	19,959	836	20,795		

<sup>\*)</sup> areas in Bavarla

The increase of the acreage in 1962 compensated the decrease in 1961.

Considerable increases of the hop acreage in Germany have been effected during the spring of 1963 and are estimated at a total of about 2,500 acres. The bulk of the new hop yards is situated within the Hallertau.

This disease appeared in the Hallertau in 1962 stronger than the year before. The infection of the hop yards is very unequal. It is regrettable that up to now no progress has been possible regarding the control of Verticillium Wilt. Considerable work is now going on to raise plants which are wilt resistant or wilt tolerant. In addition, the development of a simple and reliable chemical test for the Verification of Verticillium Wilt is under study.

A slowly increasing seed content in hops is to be noted during the last few years especially in Hallertau, Spalt and Hersbruck hops. It is urgently necessary that within these districts existing regulations regarding the destruction of male plants and wild hops will be attended with care.

A considerable increased number of picking machines will be in operation for crop 1963 according to informations received up to now. It appears that until the coming harvest some two thousand machines will be available. This is about three times the number of machines operating during the harvest of 1961.

Even if the necessity for an automatic harvest is given as a consequence of a lack of labour, it will be necessary to avoid existing difficulties. Machine picking often results in unsatisfactorily picked hops with a much too high percentage of leaves and stems especially where no sufficient experience with automatic harvest exists. The appearance of **Wire Hooks** within the hops has to be pointed out most especially and it will be necessary to remove these hooks by magnets.

Hop Acreage 1963

Verticillium Wilt

Seed Contents of Hops

Machine Picking

<sup>\*\*)</sup> except areas in Bavaria

Furthermore it has to be kept in mind when erecting picking machines that the capacity of existing kilns is not to be overtaxed by the output of the picking machines. In such cases, insufficiently dried hops would result and damages to quality cannot be avoided.

Origin	Total resin	Soft resins	%	Humu- Ion	- %	Lupulo + Fra tion o	c- <sub>0/</sub>	Haro	· •/_		value Imer
	anhydric	a esins		1011		soft resin		resins 70		1962	1961
Hallertau	16.7	14.2	85.03	6.8	40.72	7.4	44.31	2.5	14.97	7.6	8.0
Hallertau/Au	15.7	13.5	85.99	6.5	41,40	7.0	44.59	2.2	14,01	7.3	7.1
Hallertau/Mainburg	16.6	14.0	84.34	6.5	39.16	7.5	45.18	2.6	15.66	7.4	7.9
Hallertau/Wolnzach	16.0	13.8	86.24	6.9	43.12	6.9	43.12	2.2	14.76	7.7	7.8
Spalt	14.9	12.8	85.91	5.8	38.93	7.0	46.98	2.1	14.09	6.6	7.9
Tettnang	17.5	15.2	86.86	7.7	44.00	7.5	42.86	2.3	13.14	8.5	7.9
Wurttemberg	16.3	14.2	87.12	6.3	38.65	7.9	48.47	2.1	12.88	7.2	7.3
Hersbruck	15.4	13.3	86.36	5.5	38.71	7.8	50.65	2.1	13.64	6.4	8.2
Alsace	14.2	11.9	83.80	6.4	45.07	5.5	38.73	2.3	16.20	7.0	5.4
Belgium/Northern-Brewer	22.9	20.0	87.34	11.9	51.97	8.1	35.37	2.9	12,66	12.8	10.5
Saaz	15.0	12.9	86.00	- 5.6	37.33	7.3	48.67	2.1	14.00	6.5	7.0
Jugoslavia	15.5	14.0	90.32	8.6	55.48	5.4	34.84	1.5	9.68	9.2	8.1
U.S. Seedless Yakima    .	16.2	14.1	87.04	6.6	40.74	7.5	46.30	2.1	12.96	7.5	7.0.

Bitter Values of Crop 1962

The effective result of the German crop 1962 was about 5% higher than the official estimates.

Crop Estimate 1962

	Yield estimated lbs.	Yield weighed on January 25th 1963 lbs.
Hallertau	24,250,600 2,865,980 2,535,290 1,543,220 275,575 573,196 77,161 66,138	26,223,497 2,574,201 2,703,501 1,204,704 270,394 735,234 74,846 58,201
Total	32,187,160	33,844,578

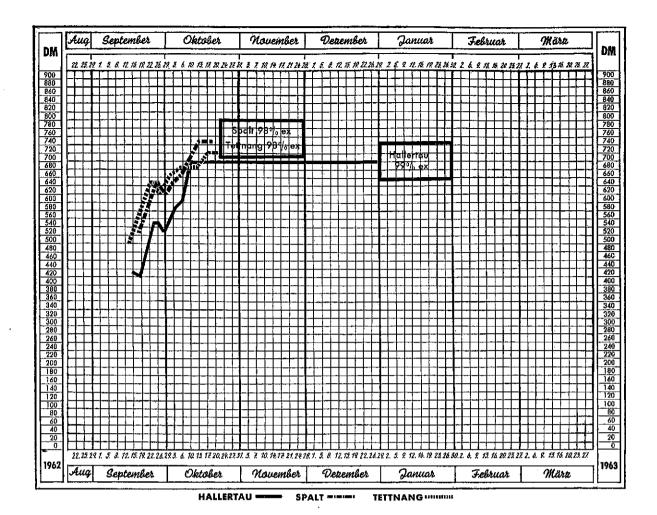
Hop Purchase Crop 1962 in Germany

Farmers were reluctant sellers despite the fact that a greater crop than the year before had been harvested. The principal reason for this was that farmers wanted to verify which quantities of hops would remain available for free sales after existing contracts had been fulfilled.

Handling of contracts required all efforts. There was an insistent demand for free available hops and the districts of production were sold out at a surprisingly quick pace, while prices were increasing constantly. The hop season 1962 in Germany was practically finished within four weeks. Already by mid-October 1962 it became increasingly difficult to purchase hops on farms. The trade was scarcely in a position at any time to submit quotations for more important quantities as no cover was obtainable. In contrast to all experiences, breweries remained without the usual sales offers. This fact and possibly smaller supplies on hand than originally estimated by breweries led to additional increases of demand which was reflected in renewed rises of quotations on the market. During this difficult season, discussions during purchasing centered more around the expected crop result than the development of prices.

HALLERTAU. Small purchases were effected in mid-September under quiet demand, on the basis of DM 450.—/460.—. On September 20th, bids to farmers suddenly rose to DM 500.— and were increased the following day already to DM 550.—/560.—. Substantial quantities were sold on this basis but demand resulted in further rising quotations which stood at DM 600.—/620.— on October 4th and increased until the end of that week to DM 620.—/650.—. The following day, October 9th, the prices jumped to DM 700.—. The Hallertau was practically sold out on this basis. Occasional lots were handled until the end of November on an unchanged price basis, whereas small final lots were purchased on farms in December 1962 and January 1963 at bids up to DM 800.—.

SPALT. In this district of production, farmers were especially unwilling to sell in the expectation of higher prices at a later date as the crop estimate of 2,866,000 lbs. was judged to be too high. Farmers expected an especially strong demand and only after the end of the harvest first sales were effected on September 20th, on the basis of DM 600.—. Prices for special lots rose to DM 650.— within one week under continued slow trading. Quotations generally were around DM 630.—/650.— at the beginning of October and rose to DM 670.—/700.— on October 5th, 1962. The district of Spalt was practically sold out by mid-October. Final lots were handled at prices up to DM 750.—.



TETTNANG. First purchases were effected around DM 550.—/560.— during the middle of September. Under slow trading at the beginning, prices rose to DM 580.—/600.— on September 20th, 1962. Prices demanded by farmers reached a passing peak of DM 700.— which, however, could not be maintained owing to lack of demand and were DM 630.—/650.— on September 25th. Considerable sales were effected on this basis. At the beginning of October already, the district became visibly emptied of hops. Prices rose to DM 670.—/680.— on October 1st and on October 9th, 1962 the level of DM 700.— was reached once again. Tettnang hops were sold out about 96%. Last available lots were handled at DM 720.—/750.—.

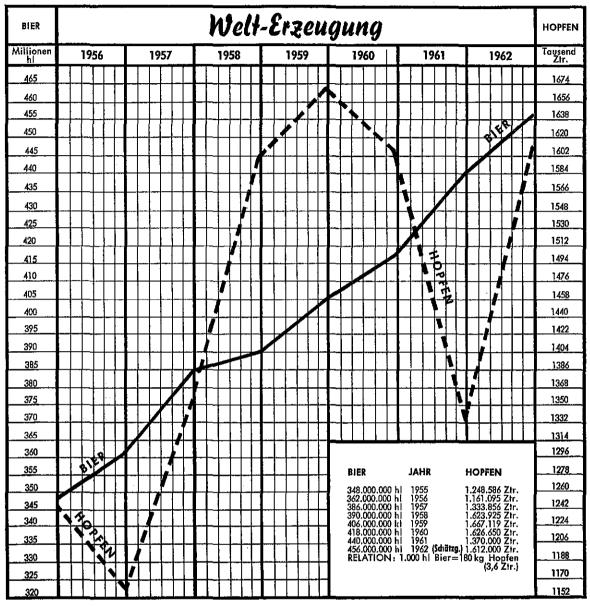
HERSBRUCK GEBIRGE. First quotations at DM 350.—/380.— led to small sales only. In Hersbruck, too, purchases were overshadowed by the sales reluctance of farmers as the harvest was late and a smaller crop than originally estimated was expected. Quotations for single lots rose to DM 390.—/400.— on September 20th. More important trading took place only by the end of September on the basis of DM 450.—/470.—. Prices rose to DM 500.— at the beginning of October and on October 8th DM 550.— were paid whereas in mid-October quotations stood at DM 650.—. At that time, the district was sold out as a consequence of insistent demand. Some final lots were even handled up to DM 700.— but purchasing became slack and quotations decreased once again to DM 630.—/650.—.

As a consequence of hectic trading in the districts of production and the unexpected quick liquidation of stocks on farms at constantly rising prices, offers came to the Nürnberg market at the beginning only for small quantities.

Trading on the market developed only after mid-October 1962, but offers continued on a limited basis. Hallertau hops were quoted at DM 740.—, Spalt and Tettnang about DM 800.— and Hersbruck hops at DM 700.—. Offers were promptly accepted as demand generally could not be fully satisfied. Despite this fact, prices remained on the above basis until the end of November 1962 with occasional oscillations. As the districts of production were sold out and supply and demand came to the Nürnberg Market, a certain stabilization of the pricing situation resulted once again.

At the beginning of December 1962, however, demand became stronger and the limited supply resulted in a price increase. Hallertau hops rose to DM 800.—, Spalt and Tettnang to DM 820.—/830.— and Hersbruck hops to DM 730.—. The tendency remained on the increase and quotations stood as follows during the second half of December: Hallertau DM 825.—, Spalt and Tettnang DM 830.—, Hersbruck DM 750.—.

Nürnberg Market Quotations remained around this level during January 1963. A quieter tendency on the market led to a decrease of prices since mid-January. By the middle of February 1963, Hallertau hops stood at DM 790.—/800.— and this price went down to DM 775.— by the end of February under quiet demand. This basis was maintained until the beginning of May 1963. (All quotations based on prices for interim packed hops.)



World production of beer and hops

In contrast to the year 1961, crop estimates before the start of picking crop 1962 pointed to a considerably greater harvest than the year before. The effective crop result became even greater than expected. The world hop demand in 1962 was almost covered by the hop production of that year in marked difference to 1961. Despite this more favourable supply situation, a distinct sellers market developed in 1962 and prices rose sometimes abruptly. The following facts may have contributed to this:

It is an old ingrained custom for breweries to cover their demand in German hops shortly after the harvest. This custom is now overshadowed by the change of the German market to hop contracts. Hop farmers need several weeks after the harvest in order to fulfill their contract obligations. As free available hops were retained, the impression of a markedly narrow supply situation was created.

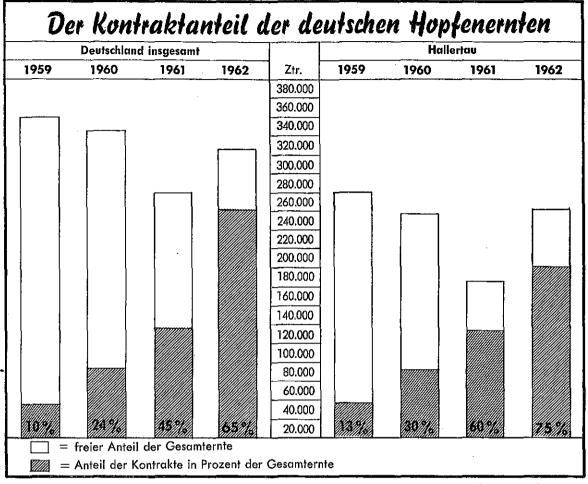
The international brewing industry had relied more than expected upon supplies on hand in order to offset missing quantities from crop 1961.

The balance of hops available for exports in the two important countries of production Czechoslovakia and Jugoslavia had been decreased by obligations resulting from crop 1961 and additional quantities had been fixed by contracts. Not only were supplies smaller than usual, but prices for available hops were relatively higher.

Remaining open demand on the world market, therefore, was funnelled into the German market. The limited stocks of free available hops in the most important district of the Haller-tau reacted quickly to the early insistent demand, especially as farmers did not like to sell. The pricing situation developed by this reason once again reflected upon the other hop markets in Germany and abroad.

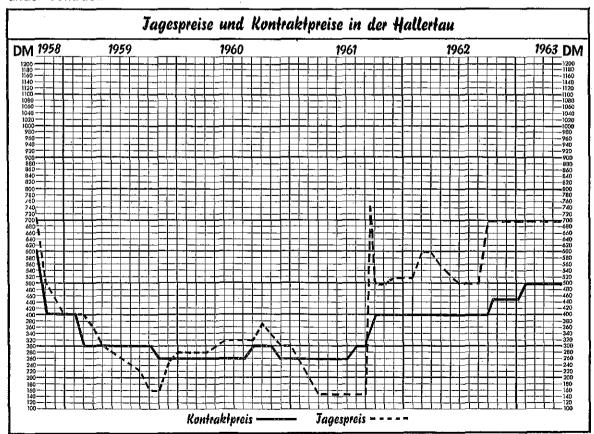
Market Survey It appears that it will take still some time until it will be realized throughout the brewing industry that an open balance of demand should not be purchased during or immediately after the harvest, as the hop markets now are under the influence of hop contracts to a considerable extent.

Crop Volume and Percentage of Contracts in Germany and the Hallertau



It can be estimated that of Hallertau hops crop 1963 alone about 80% are under contract. The percentage of hops under contract in other German districts of production has been increased as well. It can be estimated that about 70% of the German crop 1963 are now under contract.

Hallertau Prices for Spot Hops and Contracts



Farmers are not willing to accept additional contracts especially for crop 1963 as they want to maintain a reserve of production in order to fulfill existing contracts of the coming new crop. In addition to this, it is understandable that farmers wish to have a certain stock of hops for free sales. On the other hand, breweries show constant interest for contracts but the demand can only be met for orders with delivery beginning crop 1964. A certain difficulty for the estimate of the contract situation results from the fact that normal contracts for three or eventually five years have partially been substituted by a number of different variations.

The development of prices for hops crop 1962 has once again shown the stabilizing influence of contracts on the hop market. It is neccessary always to point to the following fact:

The development of the prices for spot hops can not any more serve as the alone decisive basis for estimating the development of the hop market. Spot prices now refer only to a small percentage of the total crop.

It is to be hoped that the fact of firm sales by contracts may lead to an adaptation of acreage to the contract situation in the course of further development. This would undoubtedly stimulate the maintenance of an acreage in conformity to the effective visible demand.

The estimated quantity of hops handled by cooperatives in 1961 and 1962 has been computed as follows:

Farmers' Cooperatives in Germany

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Cooperative	Quantitie	Precentage of	
Cooperative	Crop 1961	Crop 1962	Crop 1962
Hallertau Spalt Tettnang Hersbruck Gebirg . Wurttemberg Jura	11,811 cwts. 3,937 cwts. 787 cwts. 738 cwts. 984 cwts. 295 cwts.	12,795 cwts. 3,445 cwts. 2,461 cwts. 984 cwts. 1,083 cwts. 394 cwts.	abt. 6.3 % abt. 15.0 % abt. 10.2 % abt. 9.2 % abt. 44.0 % abt. 6.0 %
Total	18,552 cwts.	21,162 cwts.	abt. 7.0 %

The activity of cooperatives in purchases within the different districts of production leads to the impression that some cooperatives more and more change over to trading on their own account, whereas the bulk of activities of other cooperatives still remains in handling hops of members on the original commission basis.

The Cooperative Hallertau succeeded in disposing of the still available supplies of hops crop 1958. Final sales were effected in June 1962 at prices around DM 60.— per cwt. Restitutions of payments resulting from crop 1958 have now been terminated.

For hops crop 1962 an advance payment of DM 200.— per 50 kilos was paid. Hops on a commission basis were accepted only until September 30th, 1962, and these hops had to be delivered until October 6th. The following prices have been paid in December 1962.

Grade I	81.42 %	DM 600.—
Grade II	17.21 %	DM 590.—
Grade III	1.17 %	DM 580.—
Grade IV	0.20 %	DM 550.—

Increased usage of hop concentrate in the brewing industry will now have to be taken into consideration within the hop statistics as follows:

Exports of Hops as Hop Concentrate

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Export of Hop Concentrates						
	Concentrates	Percentag	ge of Total			
•	Total in lbs.	German Export	Export "in bond"			
Year 1960 9/1/60 — 8/31/61	217,155	73.65 %	26.35 %			
Year 1961 9/1/61 — 8/31/62	677,921	32.88 %	67.12 %			
Year 1962 9/1/62 — 3/31/63	298,065	59.69 %	40.31 %			

#### Export of German Hops Crop 1962 September 1st, 1962 - March 31st, 1963 Country lhs lbs. Country lbs. lhs. 774.035 96.342 8.524.968 Beiglum-Luxemburg . . . b. f. . . . . . . . . . Denmark 209,657 Ivory Coast . . . . . 9.921 131,394 Finland 14.550 Ghana 779,326 France 14.550 Cameroons Greece 17,857 Canary Islands . . . . . Kenya-Uganda . . . . . 16.975 Great Britain . . . . . . 240,963 18,739 661 ireland . . . . . . . . . 2,205 Congo 1,227,742 Italv Liberia 220 5.291 Malta Lybia . 3,527 Netherlands . . . . . 280,205 Madagascar . . . . . 16,535 158,952 Norway . . . . . . . . Marocco 30,864 665,348 Austria Moçambique . . . . 11,023 Portugal . . . . . 77,161 Rhodesia 25,353 Spaln . . . . . . . . . 219,358 Ruanda-Burundi 16.535 Switzerland Sweden 398,592 11.023 Senegal . . . . . . 654,105 Sudan 14.550 180.998 Republic of South Africa . Europe . . 5.840.647 8,818 Brazil . . . . Tunis 187,391 Central Afric, Republic 7.496 Canada . 9,039 500.224 Africa . . . . . . . Chile 661 Columbia 33.069 Ceylon . . . . . . . 4.189 French West Indies . . . 1.543 29,542 Hongkong . . . . . . Guatemala . . . . . . . 2,205 441 India 11,023 Mexico 19,841 Indonesia . . . . . . Nicaragua . 2.205 11,023 Iraq . . . . . . . . . . . . . Panama exc Canalzone 2,646 893,965 Japan Uruguay . . . . . . . 15,432 Lebanon 22,046 II SĂ Malayan States 2,407,423 5,512 West Indies . . . . 11,684 Philippine Isl. . . . . . 115,742 5,512 Singapore . . . . . . America . . . . . . 2.684.321 Syria . . . . . . . Thailand . . . . . . Syria 10,362 Egypt . . . . . . . . . 22,046 50,706 Ethiopla . . . . . . . . 17,637 Asia 1,168,881 Angola 43,431 Dahomey . . . . . . Australla 7,937 13,228 French Pacific Isl. . . . . 6,613 14,550 Australia 10,208,623 96,342 8,524,968 c, f. . . . . . . . . . . . . . Total

German hop exports crop 1961 until March 31st, 1962 = 9,233,747 lbs.

#### German Hop Imports Crop 1962

The following lots of hops have been imported from September 1st, 1962, to March 31st, 1963:

Belgium-Luxemburg 59	1,494 lbs. b. f	. 2,315,271 lbs.
France	31,439 lbs.   Czechoslovakia	899,918 lbs.
Great Britain 17	/7,470 lbs. U.S.A	. 1,576,950 lbs.
Jugoslavia 1,36	34,868 ibs.   Austria	. 13,889 lbs.
c. f	5,271 lbs.   Total	. 4,806,028 lbs.

German hop imports crop 1961 until March 31st, 1962 = 5,185,881 lbs.

**RESTRAINT OF IMPORTS.** Up to now, hops were entirely free within the German foreign trade. Imports of hops from Jugoslavia have now been put under restraint by the publication No. 51 079 (*Bundesanzeiger* No. 131 dated July 14th, 1962). These imports can now be prohibited within 10 days if and when spot prices to farmers for Hallertau hops become lower than DM 400.— per 50 kilos.

A considerable uncertainty has been created by this order. Even if these instructions have not gone into force during the season of crop 1962, current transactions with Jugoslavia can be interrupted by same at any time. An eventually intended protection for the sale of German hops cannot result from this for the following reasons:

- 1. Jugoslavian hops excluded from delivery to Germany will have to be offered on the world market, and the influence of this always will reflect upon the German hop industry. Any pressure upon prices eventually resulting cannot fail to be felt in Germany in this way.
- 2. There is always the possibility that attractively priced hops from other countries of production can replace low priced imports from Jugoslavia.

CUSTOM DUTIES AD VALOREM. These duties are established by German law dated January 17th, 1952 (Bundesgesetzblatt 1952 page 1) which put into effect the Brussels Agreement. Procendings are taken according to the order of November 29th, 1961 (Bundesgesetzblatt 1961 page 1983/Bundeszollblatt 1961 page 1056). This order mentioned hops in the list of merchandise with a term of not more than twelve months for the liquidation of import orders.

Trading terms for hops have changed in the meantime as advance contracts for hops have been introduced not only for the home trade, but for foreign trade as well both for import and export. Contracts are mostly for three years and orders are liquidated usually within a term from between 6 months before the first crop until 6 months after the third crop totalling at least 36 months.

Importers close orders with German breweries at firm prices. It has been officially recognized that hop contracts contribute considerably to the stabilization of the strongly oscillating hop market. This benefit, however, cannot be obtained if contract prices do not remain stable as custom authorities arbitrarily fix values for hop duties ad valorem.

By order No. 3/63 dated March 4th, 1963, of the *Zollwertgruppe Köln*, the necessary change of list II of the instructions for duties ad valorem has been effected in the meantime.

ORGANIZATION of the E.E.C. Discussions regarding the entry of Great Britain into the E.E.C., which had been held for fifteen months in Brussels, had to be terminated without result on January 29 th, 1963. As a consequence, discussions regarding the entry or the association of other countries have been shelved as well.

CUSTOM TARIFFS. An additional decrease of internal custom tariffs within the E. E. C. will be effected on July 1st, 1963, according to the second resolution regarding the acceleration of proceedings within the E. E. C. According to point 14 of the Rome Agreement, every single member state has to reduce custom duties in such a way that the total load of duties is decreased by 10%. For each article, the rate has to be lowered so as to amount to at least 5% of the original custom rate of January 1st, 1957.

It is possible, therefore, to decrease the custom rate for some articles by 5% only. In that case, however, a higher decrease has to go into effect for other articles so that the entire lowering of custom duties amounts to a total of 10%.

For complete information it may be noted that the handling of hops from other countries in bond (manufacture of hop concentrate) is subject to a custom duty if the re-export goes to a member country of the E. E. C. Custom duties on the imported hops have to be paid in the following proportion:

Since January 1st, 1961 — 25 % of duty Since January 1st, 1962 — 45 % of duty.

This custom duty will be increased until the completion of the transitory time to reach the full rate of the common external custom tariffs. Within the member countries, the manufactured articles will be subject to the decreased internal rate of duty until this will have completely disappeared at the end of the transitory time.

INTERNATIONAL CUSTOM DISCUSSIONS. The new custom rates resulting from the decisions of the GATT discussions in Geneve (GATT = General Agreement on Tariffs and Trade), February 16th, 1962, went into effect according to a publication in the *Bundeszoll-blatt* No. 39 of August 13th, 1962.

The government of the U.S.A. proposed a new GATT conference in order to further decrease custom duties. The conditions of the "Trade Expansion Act 1962" would have given the possibility for a complete abolition of custom duties between the U.S.A. and the E.E.C. for a number of articles of which these countries would furnish at least 80% of the supply. As the entry of England did not come into effect, these regulations can only apply to two articles whereas all other rates of custom duties can now only be lowered until 50%.

RESTRAINT OF HOP TRADE. The commission of the E.E.C. has inserted identical publications under the date of September 13th, 1962, both for the Netherlands (63/68/E.E.C.) as well as for Belgium and Luxemburg (63/89/E.E.C.) in the Official Publication of the E.E.C., year 6 No. 21, February 7th, 1963. It is stated that the import of hops in the above countries has been lower than the total of import licenses available during two consecutive years.

In accordance with the Rome Decree especially point 33 § (1), the above countries have now been enjoined to discontinue import licences for hops imported from member countries.

The three countries are expected to publish corresponding orders at an early date. It is much to be hoped that now France, too, will come to an identical decision. According to the information on hand, in this country imports of hops were lower than import licences available. In that case, uniform treatment of hop imports within all countries of the E.E.C. would result.

MARKETING AGREEMENT for HOPS. According to a publication IV 386 the Bundestag had approved an application for a Hop Marketing Agreement. The Bundesministerium für Wirtschaft has been asked by the Bundesministerium für Ernährung, Landwirtschaft und Forsten according to publication IV/568 of June 27th, 1962, to submit a corresponding application to the commission of the E.E.C. (General Economical Section). It has been submitted that the commission may propose measures to the Council of Ministers according to article 43 of the Rome Agreement with the following aims:

- 1. Standards of quality and certificates of provenience.
- 2. Equality of trading conditions within the member states.
- 3. Preferment of hops produced by member states within the E.E.C.
- Protective measures for hop production within the member states of the E.E.C. against detrimental imports from Eastern countries especially Czechoslovakia and Jugoslavia.

European Economic Community (E. E. C.) According to publication IV/637 of September 14th, 1962, the authorities of the E.E.C. are examining the matter. For the time being, information and other material will be collected at the section VI of the E.E.C. at Brussels.

GRAIN MARKET REGULATION. It may not be amiss to introduce into a hop report a summary regarding the Grain Market Regulation within the European Economic Community (E.E.C.). This may find interest as it refers to Barley as well and finally certain conclusions may be possible considering an eventual market regulation for hops. The gradual establishment of a common market organisation is intended according to Article 45 of the Rome Agreement, to lead to a common market until 1970. The authorities of the E.E.C. on April 4th, 1962, have published a Decree No. 19 which establishes the following measures:

- 1. A regulation for equalization dues. **Equalization Dues** correspond to the difference between the price of the supplying country free border and the threshold price of the purchasing country. A gradual levelling of prices is aimed at. The equalization dues in trade with other countries will correspond to the difference between the most favourable world market price CIF of a border point which has to be determined, and the threshold price of the importing country. For the time being, all equalization dues received remain at the disposal of the importing country.
- 2. The **Threshold Price** is to be established yearly by the member states on the basis of a **Standard Quality** and in such a way that the price of imported grains should correspond to the basic price. The standard qualities are to be determined by the *Bundes-Ernährungs-Ministerium*.
- 3. The Basic Price is valid for the trading centre showing the highest demand. This price has to be fixed with regard to the price to farmers which is to be aimed at according to the authorities of the E.E.C. All basic prices for other trading centres will be settled at a lower level according to location and supply situation. The authorities of the E.E.C. will determine the upper and lower brackets of basic prices for standard qualities in order to attain a common basic price at the close of the transitory period.
- 4. In order to guarantee sales prices to farmers which correspond as far as possible to basic prices, member states will establish **Prices of Intervention**, which generally are to be between 5 and 10% lower than basic prices. Intervention offices (for inst. the *Einfuhrund Vorratsstellen* in the Fereral Republic of Germany) are obliged to purchase home grown grains at intervention prices, to be sold at basic prices only.
  - 5. All imports and exports are subject to licenses.
- 6. All member states will take necessary measures to apply this Decree No. 19 starting from July 30th, 1962.

In Germany, the necessary law to apply the Decree No. 19 has been published by the *Bundestag* and is in force since July 30th, 1962. Equalizing dues will be levied by the Ministry of Finance according to a separate law. Detailed instructions for the application of Decree No. 19 have been published by the *Bundesministerium der Finanzen* No. III B/2 - Z 1804-77/62 on July 17th, 1962. No custom duties are due if equalizing dues are paid, whereas turnover tax at the border, as well as excise duties will continue in force. (All Decrees and laws published in the *Bundeszollblatt* No. 36 of July 23rd, 1962).

At the beginning of the grain year 1962/63, the following prices for 1,000 kilos of **Barley** were in effect in the various countries of the E.E.C.:

	Germany	Belgium	Netherlands	France	ltaly
Basic price	DM 412.—	DM 348.90		DM 315.90	. — .
Intervention price	DM 383.50	DM 324.—		DM 271.30	
Threshold price	DM 427.—	DM 336.10	DM 308.—	DM 307.70	DM 250.40

Offers for imported barley from overseas during the first half of August 1962 were within a bracket of DM 214.—/238.— per 1,000 kilos, CIF port of destination, duty unpaid. Prices for barley from overseas within Germany ranged between DM 425.— and DM 440.— per 1,000 kilos F.O.R. In Germany, all three prices (Basic price, Intervention price and Threshold price) are increased by a monthly addition (Report) of DM 4.— per 1,000 kilos during the 6 months from October to March.

The German brewing industry at this time requires **Imports** of **Malt** and malting barley, which subject to the result of the crop in Germany oscillate between 20 and 30% of total requirements.

According to § 5 of the instructions for the application of Decree No. 19 in Germany, special increases and decreases referring to threshold prices were fixed for seed grains and Malting Barley. This measure, however, had to be rescinded according to the Decree No. 122 published by the authorities of the E.E.C. on August 18th, 1962. The increase of DM 40.—per 1,000 kilos for malting barley to the price of intervention however, has remained in force.

On October 30th, 1962, the authorities of the E.E.C. have allowed by Decree No. 130 that equalizing dues in connection with imports of malting barley may be fixed in advance for a period up to three months. Since it became impossible to settle the equalizing dues in advance after July 30th, 1962, irksome changes had resulted regarding the usages established for grain imports. These changes continue to exist for contracts at longer terms than three months.

About 50% of the import necessities for **Malt** amounting to about 100,000 tons are supplied by countries within the E.E.C. Among the other supplying countries, England and Czechoslovakia are important suppliers. Until February 1961 imports of malt were subject to a sliding custom duty. This was suspended until July 1962, after malt had been included within the German grain market order. Since July 30th, 1962, the instructions of Decree No. 19 applied to malt as well. Decree No. 130 of October 30th, 1962, however, covered imports of malt too, so that the same conditions now prevail as applied to imports of malting barley.

The Deutsche Demokratische Republik (D.D.R.) after their last hop purchases in Western Germany in February 1962 once again preferred to purchase hops from Czechoslovakia and Jugoslavia. No hops crop 1962 were supplied from Western Germany, but it may be noted that hops have been purchased even from as far as North Korea.

Inter-German Trade (I.D.H.)

Cool and wet weather in march delayed the **Uncovering** and the **Cutting** of the hops. The plants could develop better under warmer weather in April 1962, but temperatures were lower than normal during all the following months and precipitations were sometimes considerably under average. Owing to these weather conditions the hops could not grow satisfactorily. The vines remained often pointed and in part reached scarcely the height of the trellises. In climatically favoured gardens, the height of the trellises was attained about July 20th.

Demokratische
Republik
(D.D.R.)

Hails caused local damages. Pests and Diseases had to be controlled. About two thirds of the acreage was treated with Terra Sytam, whereas the other hop yards were sprayed two or three times with systemic sprays. About three sprayings were effected against Downy Mildew, which appeared especially during or shortly before the harvest. Aphids were very much in evidence in some hop yards. Bloom started during the first days of August. The vines, however, in most hop gardens showed a set only in the upper half, whereas no set appeared on the lower third of the vines. The Formation of the Cones and the Ripening of the hops was hampered by climatic conditions. Precipitations and average temperatures were as follows:

	March	April	May	June	July	August	Sept.
Precipitations	44	40	57	29	70	38	34 mm
Temperatures	0.9	9.8	11.1	15.7	16.1	16.8	12.7° C

**Picking** started sporadically on September 1st, was in full swing on September 4th and finished about September 20th. There was some lack of labour. About 40% of the acreage are automatically harvested. There are 56 picking machines in operation.

The Quality of the hops was not judged quite well. The cones were not well closed, sometimes of small size, and of low content of lupulin. Damages by aphids were to be noted. The crop was graded as follows: 35.6% grade III, 56.2% grade IV, 8.2% grade V. The acreage in 1962 was 4.858 acres of which about 198 acres new gardens, Prices were fixed as follows:

Grade	ı	DM-East	1,000.—	per	50	kilos
Grade	11	DM-East	900.—	per	50	kilos
Grade	111	DM-East	800.—	per	50	kilos
Grade	ΙV	DM-East	700.—	per	50	kilos
Grade	V	DM-East	600	per	50	kilos

The acreage is distributed to about 54% among "Agricultural Co-operatives (LPG)" and 46% among "Public owned Estates (VEG)".

In 1962, climatic conditions were not especially favourable for hops. Precipitations were distributed as follows:

Poland

r.i. .

	March	April	May	June	July	August	Sept.
Lublin	44.3	39.9	156.1	93.2	71.1	46.5	64.3 mm
Kielce	62.8	42.7	168.0	109.1	207.0	50.9	68.8 mm

The Uncovering and Cutting was done in April 1962. The weather was excessively rainy during the entire growing season of the hops. Temperatures were rather low still in June and as a consequence of the rainy weather there were damages by **Downy Mildew. Aphids** as well as **Red Spider** were kept under control. About 4 sprayings were effected.

The vines reached the height of the trellises in June and were in **Bloom** in mid-July. The cool weather persisting in August hampered the **Ripening** of the hops. **Picking** started at the end of August and was finished around the middle of September. Strong rainfalls hampered the harvest which is still done exclusively by hand.

The **Quality** of the hops crop 1962 was not judged so good as the year before. The cones were of yellowish green colour, but off-coloured cones were to be noted as a consequence of the weather. The harvest was graded as follows: 10% grade I, 89% grade II, 1% grade III. The hops were handled centrally. About 55% of the acreage are cultivated by farmers, whereas 45% are distributed among state farms and co-operatives.

Hop Exports from Poland crop 1962 are supposed to be 7.000 cwts.

By the Bundesministerium für Wirtschaft, a notice No. 12/63 dated March 19th, 1963, (VBG/910501) has been published (Bundesanzeiger No. 64, dated April 2nd, 1963, page I). According to this, an amount of DM 100,000.— has been included within the Trade Agreement for the delivery of German hops to Poland. No amount has been mentioned for the delivery of Polish hops to Germany.

#### Czechoslovakia

The winter of 1961/62 brought only scant precipitations. The plants came well out of dormancy, and **Spring Work** could be finished in good time under favourable weather conditions.

The growth of the hops was hampered by cool and unfavourable weather at the end of April. Rainfalls were distributed as follows:

	March	April	May	June	July	August	Sept.
Saaz	21.0	18.5	35.5	29.4	65.4	21.2	37.3 mm
Auscha	49.3	30.6	59.3	18.8	74.7	35.2	46.5 mm

Hops could develop better under warmer weather in June but the general stand of the hop yards was unsatisfactory by the end of June / beginning of July as a consequence of repeated bad weather and dryness. Welcome warm summer weather started only in August, and the plants could recover visibly. **Downy Mildew** as well as **Pests** were carefully controlled.

The hops reached the height of the trellises in mid-July and were in **Bloom** by the end of that month. The set was very luxuriant. The vines had less foliage than normal, so that the **Formation** of the **Cones** could develop better than expected under fine sunny weather. This contributed to an increase of yield which had been reduced by **Storm Damages** in mid-August which affected an acreage of 370 acres.

**Picking** started on August 25th, and was finished by mid-September under generally good weather conditions. There are 170 picking machines in operation. Belt dryers were in use for the first time. Part of the harvest was picked by school children.

Quality. Saaz hops, crop 1962 had normally formed cones of middling size. The light lupulin had the well known good aroma. The cones showed some **Wind Whipping**. The crop was graded as follows: 83.5% grade I, 15.8% grade II, 0.7% grade III.

**SLOVAKIA.** Production of hops has now been recognized officially. Two new districts of production have been created as follows:

Piestansko-Topolcansko (Valley of Waag and Neutra) Trebisovsko

Hops from these districts of production are destined exclusively for usage in the home brewing industry.

#### **Jugoslavia**

In the **SANNTAL (SLOVENIA)** growth was delayed during the spring of 1962 by generally cool weather which continued until the middle of May. Precipitations and temperatures were as follows:

	March	April	May	June	July	August	Sept.
Precipitations	101.1	94.9	154.4	89.1	149.0	26.6	168.5 mm
Temperatures	1.9	10.1	13.6	16.2	18.1	20.5	14.3° C

It could be expected that the hops would offset the delay in growth under sunny and warm weather during the summer of 1962. The hops had reached the height of the trellises by the end of June / beginning of July and were in **Full Bloom** on July 20th. The set justified good expectations. The plants showed a good overhang even if **Laterals** were less prevailant than normal.

Rather high temperatures and dry weather during the final period of growth, however, hampered the **Formation** of the **Cones** so that the harvest resulted smaller than expected. **Hails** caused an additional loss of more than 6,000 cwts. **Picking** started on August 15th, and was finished during the first week of September. There is no lack of labour and only one picking machine continues in operation.

Styrian hops, crop 1962 had smaller cones than normal as a consequence of weather conditions, but were better than the year before in colour and quality. The crop was graded as follows: 96.5% grade I, 3% grade II, 0.5% grade III. All hops were handled centrally. Exports were 53,496 cwts., whereas 4,920 cwts. of hops were delivered to the home brewing industry.

BACKA. The cold winter of 1961/62 with temperatures down to —15° C brought little snow. The spring 1962 was cold as well but considerable snowfalls until mid-April resulted in welcome ground humidity.

Despite retarded **Spring Work**, the hops could recuperate under warm weather and sufficient rainfalls in May and June. The vines reached the height of the trellises in mid-June and were in **Full Bloom** in mid-July. Precipitations were distributed as follows:

	March	April	May	June	July	August	Sept.
Precipitations	102	45	17	30	44	8	38 mm
Temperatures	2.1	12.3	16.6	18.1	20.0	22.0	15.8° C

About 6 to 8 sprayings were effected against pests and diseases. The hot and dry weather during the summer resulted in a good overhang. The **Formation** of the **Cones** as well as the **Ripening** of the hops was favoured by weather conditions. Cones were fully ripened on the lower third of the vines.

Picking started on August 23rd and was finished on September 13th under generally favourable weather. All hops are picked by hand and there is no lack of labour.

Quality. The hops crop 1962 had cones of middling size of good colour and were judged of about the same quality as the year before. The harvest was graded as follows: 82.5% grade I, 12% grade II, 5.5% grade III. The entire crop was purchased at an average price of Dinar 37,500.— (DM 500.—) per 50 kilos.

The cultivation of hops is on the increase not only in the Backa, but in the districts of Srem and Banat as well.

The following information has been published in newspapers regarding the development of the **Hop Exports** from Jugoslavia according to calendar years (not crop years):

Calendar year	Calendar year Export		Export		
1952	2,277,252 lbs.	1957	5,222,697 lbs.		
1953	3,185,647 lbs.	1958	5,485,045 lbs.		
1954	3,961,666 lbs.	1959	7,292,817 lbs.		
1955	4,955,941 lbs.	1960	10,255,799 lbs.		
1956	5,002,237 lbs.	1961	12,200,256 lbs.		

The percentage of acreage planted to the different varieties of hops in Belgium is as follows:

						abt.	50 %
•						abt.	7 %
							00 %
ettr	 ettnar	· · · · · ettnang	ettnang.	ettnang	ettnang		abt. abt. abt. abt. abt. abt. abt. abt.

In the district of <u>ALOST</u> the hops had wintered well despite the long and cold winter. The plants could develop only slowly under cool weather until the middle of June 1962. **Aphids** had to be controlled especially in April and May whereas **Downy Mildew** required careful attention during the entire growing time of the plants.

As a consequence of weather conditions, hop yards showed notable differences in development. The vines reached the height of the trellises under warmer weather about July 20th, but remained rather pointed. **Bloom** started somewhat late during the last decade of July.

**Picking** started on September 6th and was finished on September 25th. There is no lack of labour, as already two thirds of the harvest are picked by machines.

Quality. The hops of crop 1962 were in part off-colour, but were judged better than the year before, especially regarding contents of lupulin. The crop was graded as follows: 60% grade I, 30% grade II, 10% grade III.

Prices started on the basis of Bfrs. 4,500.— at the beginning of September, reached Bfrs. 5,700.— by the beginning of October and stood at Bfrs. 6,750.— in mid-October. Final lots were traded at Bfrs. 7,000.— during the first half of November. The district was sold out in mid-November.

Belgium

POPERINGHE. A long and cold winter delayed the Spring Work. The hops were off to a delayed start under cool weather in April and May with Frosts even until the first day of June. At that time, the vines had reached only about one meter of height. The weather became dryer and warmer in June so that the plants could grow better and about two thirds of the height of the trellises was reached during the second half of June. The vegetative development benefited in July under favourable warm weather with sufficient precipitation but high Winds occasioned local damages in hop yards at the end of July. Oscillating climatic conditions continued through August so that the plants could not reach such a good development as had been hoped. There was scarcely any infection of Downy Mildew and local infestation of Red Spider by the end of July and during August was carefully controlled.

The hops reached the height of the trellises during the second half of July. **Bloom** started at the beginning of August on early varieties. Generally, the plants had remained pointed but the growth appeared better than the year before. There were scarcely any cones on the lower third of the vines. **Picking** of early varieties started during the first decade of September whereas the harvest of late varieties started during the last decade of that month. There are about 110 picking machines in operation so that practically the whole crop is picked by machines. For this reason damages by weather during the harvest could be avoided.

The Replant Hallertau hops had irregular formed cones occasionally with some seeds. The hops were healthy and the quality was better than in 1961. The variety Northern Brewer had smaller cones than usual which, however, were of good green colour with an ample content of lupulin. The variety Brewers Gold had well formed cones of good colour and ample lupulin but was not much better than the year before.

The crop was judged as follows: 40% grade I, 58% grade II, 2% grade III.

At the beginning of September prices started on a basis of Bfrs. 4,500.— for Replant Hallertau, rose to Bfrs. 4,700.— in mid-September, reached Bfrs. 6,000.— at the beginning of October and stood at Bfrs. 7,000.— by the middle of October. Decreased demand resulted in lower prices which reached Bfrs. 6,500.— at the beginning of November. Other varieties were quoted in a corresponding bracket of prices. The crop was sold out rapidly, so that at the beginning of January 1963 only 300 cwts. remained unsold on farms.

Belgium imported the following quantities of hops crop 1962 from September 1st, 1962, until January 31st, 1963:

	lbs.		lbs.
Germany West	558,866	b. f	934,309
France	79,807	Great Britain	
Netherlands	14,330	Switzerland	9.259
U.S.A	179,454	Czechoslovakia	1,055,122
USSR	41,887	Jugoslavia	338,627
Poland	59,965	Total	<u> </u>
c. f	934,309		2,171,011

Belgian hop imports crop 1961 until January 31st, 1962 = 2,311,303 lbs.

Export of Belgian hops from September 1st, 1962, until January 31st, 1963 are shown as follows:

	lbs.		lbs.
Germany West	636,248	b. f	838,631
France	9,480	Ireland	16,755
Italy	882	Japan	8,818
Netherlands	60,186	Kenya and Uganda	22,266
Angola	7,055	Norway	1,984
Austria	45,194	Roumania *)	39,462
Brazil	19,841	Great Britain	33,951
Congo	3,307	Sweden	59,965
Denmark	<b>4</b> 5,415	Switzerland	48,501
Finland	11,023	Un. of South Africa	33,289
c. f	838,631	Total	1,103,622

Belgian hop exports crop 1961 until January 31st, 1962 = 749,344 lbs.

Precipitations in France were distributed as follows:

	March	April	May	June	July	August	Sept.
Alsace	54.9	56.9	76.1	22.1	46.6	52.6	55.5 mm
North	45.1	16.8	34.2	14.7	64.5	50.4	38.9 mm

In the ALSACE the development of the hops suffered from a wet and cold spring. The unfavourable conditions continued until May 1962, but there were no frost damages. Welcome summer weather started in June and persisted until the harvest so that the hops showed a better growth. Precipitations, however, were insufficient and the influence of the dryness was to be noted in the hop yards. Up to ten sprayings were effected against Pests and Diseases. The plants reached the height of the trellises around July 10th and were in Full Bloom by the end of that month. On the average the vines remained pointed and showed scarcely any overhang. Under these conditions, yield was lower than the year before.

Quality. The Alsace hops of crop 1962 were of good colour. The cones were of smaller size than the year before and had a lower content of lupulin. The crop was graded as follows: 92% grade I, 6% grade II, 2% grade III.

About 25% of the Alsace hops are under contract. For the remainder, the purchase developed rapidly in September 1962. Advance payments as practiced in the Alsace stood between Fr. 200.— and Fr. 140.—. In the meantime two further payments were effected so that up to now prices were as follows:

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Premium quality . . . Fr. 550.— (DM 440.—) per cwt. Choicest quality . . . Fr. 530.— (DM 424.—) per cwt. Choice quality . . . . Fr. 505.— (DM 404.—) per cwt. Good medium quality . Fr. 485.— (DM 388.—) per cwt. Off-grade . . . . . . Fr. 430.— (DM 344.—) per cwt.
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A further payment (premium) will be paid in addition to the above amounts.

The district of Alsace was sold out until the end of October. Part of the supplies could be disposed of to advantage for exports as a consequence of the generally increase of prices. No export subsidies for hops were paid.

FLANDRES. The weather was relatively favourable for the development of the hop gardens. Spring Work was finished in March under good weather conditions and the plants were off to a good start. In April, temperatures were sometimes down nearly to freezing point, but no frosts appeared and growth could develop well under warm weather and welcome rainfalls. Downy Mildew was carefully controlled by about 14 sprayings. Despite this, local damages were occasioned by Pests during the last time of the harvest. The hops reached the height of the trellises at the beginning of July. The vines were not exactly pointed, but on the other hand did not show any special overhang. Bloom started on July 18th. Especially among Replant Hallertau hops Verticillium Wilt was noted locally to a small extent.

**Picking** started on September 5th, was in full swing on September 10th and finished on September 30th. There was no lack of labour. About 80% of the harvest are already handled by sixteen picking machines.

Quality. The hops were graded as follows: 10% premium quality, 35% grade I, 50% grade II. The hops were of pale green colour and the cones were relatively small.

First lots were traded during the beginning of September at Fr. 450.—. Prices rose to Fr. 500.— by mid-September, Fr. 550.— by the end of September, to reach Fr. 650.— at the beginning of October and Fr. 700.— in mid-October. Under slower demand, quotations decreased to Fr. 650.— by the beginning of November. At that time, the district was already sold out by about 90%. A remaining stock of about 400 cwts. was still available on March 1st, 1963, and at that time there was scarcely any demand.

In 1962 France imported:

Countries	Jan.—June July—Dec. 1962 Total lbs. lbs. lbs.
Belgium-Luxemburg	—     220     220       639,334     606,265     1,245,599       448,636     92,373     541,009       249,340     779,547     1,028,887       —     341,713     341,713
Total	<u>1,337,310</u> <u>1,820,118</u> <u>3,157,428</u>

Destination	Jan.—June Ibs.	July—Dec. Ibs.	1962 Total lbs.
Algiers	39,242 156,968 —	881 129,851 7,716	40,123 286,819 7,716
Germany West	213,405 15,432 2,205 661	177,691 —— ——	391,096 15,432 2,205 661
Guadeloupe	20,723 — 2,425	11,023 2,866	20,723 11,023 5,291
Netherlands	33,289 46,517 17,416	26,455 2,646	33,289 72,972 20,062
Span. possessions in Africa Vietnam	8,818 134,260 2,205		8,818 134,260 2,205
Total	693,566	359,129	1,052,695

French hop exports for the calendar year 1961 = 2,254,644 lbs.

#### Austria

In the district of <u>MUHLVIERTEL</u>, the <u>Uncovering</u> and <u>Cutting</u> could be finished only about the end of April 1962. The weather continued cool until cold and very rainy until the middle of July, so that the growth of the hops was visibly retarded. From that time on the weather became favourable until the harvest, but the plants could not offset completely the earlier delay in growth. Between 10 and 11 sprayings were effected against **Pests** and **Diseases**.

The hop plants reached the height of the trellises as late as mid-July. Bloom started by the end of July. The plants had not formed very good overhang and generally remained somewhat pointed. The weather conditions were favourable for the **Formation** of the **Cones** and the **Ripening** of the hops. The **Harvest** started on September 3rd and was finished on September 20th under favourable weather conditions. There were pickers available.

The hops of crop 1962 were judged better in colour and quality than in 1961. Cones were uniformly sized and well formed. The crop was graded as follows: 92% grade I, 8% grade II. A harvest of 115,741 lbs. resulted from an acreage of 118 acres (980 lbs. per acre).

In the district of LEUTSCHACH the hops could grow only slowly under cool weather at the beginning of the vegetative development. Between 8 and 10 sprayings were effected against Pests and Diseases. Later on temperatures became more favourable and the plants could develop better and reached the height of the trellises at the beginning of July. The vines showed only little overhang. Generally, the stand of the hop yards was quite satisfactory and the coming crop 1962 was expected to be around 1,700 cwts. It is regrettable that heavy Hails on July 27th destroyed about one third of the crop. Dryness in August hampered the Formation of the Cones, but the cones ripened even on the lower third of the vines.

**Picking** started on August 27th and was finished under good weather conditions on September 10th. For the first time there were five picking machines in operation so that about half of the crop was handled mechanically. Despite this, there was a local scarcity of labour.

As a consequence of the weather conditions, the hops of crop 1962 were smaller than usual and the cones were not so heavy as normal. The **Quality** was graded as follows: 76.3% grade I, 12.5% grade II, 11.2% grade III. On a total acreage of 142 acres (including about 12 acres new hop yards) a crop of 140,543 lbs. was harvested (990 lbs. per acre).

The entire crop was purchased by sponsering breweries. Hops grade I fetched öS 59.90 per kilo (DM 460.— per 50 kilos).

#### Switzerland

The development of the hop yards was retarded by a cold spring. Warmer weather during the second half of April resulted in a better growth, but this was hampered once again by a cold spell and **Night Frosts** at the beginning of May. Generally, the weather remained cool and dry. Up to ten sprayings were effected against **Pests** and **Diseases**. Locally, some infestation by **Red Spider** was noted. A heavy thunderstorm and **Hail** on August 2nd, occasioned local damages.

Precipitations were distributed as follows:

1	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	93	46	68	29	106	41	63	122	58	9	19	47 mm

First **Bloom** was noted on July 20th. The hops had reached the height of the trellises and showed a good overhang. By the end of July the hops were in **Full Bloom** and development was favourable until the harvest under warmer weather. **Picking** started on August 28th and was finished on September 13th. About 90% of the crop are handled by one picking machine.

The Quality of the hops, crop 1962 was judged well. There were only hops of grade I. On a somewhat smaller acreage of about 22.6 acres, which included no new hop yards, a total crop of 2,249 lbs. was harvested (995 lbs. per acre).

The entire crop was purchased by sponsering breweries which paid Sfrs. 705.— per 50 kilos. Farmers received Sfrs. 610.— whereas Sfrs. 95.— were paid into the Compensation Fund.

No important changes have occured with the trial hop yards. A somewhat smaller acreage of 42 acres is indicated for 1962 and the harvest amounted to 4,189 lbs. (996 lbs. per acre).

The development of the hop yards in Spain went on under favourable conditions during 1962. There were practically no **Pests** or **Diseases** as a result of careful control measures. The area of production in León has been increased by about 247 acres whereas a somewhat smaller acreage than in 1961 has resulted in Galicia. A considerably greater harvest than in 1961 was gathered into the barns on a total acreage about 10% greater than the year before.

District	Acreage	Crop	Yield per acre
	acres	Ibs.	lbs.
Galicia	554	384,813	695
León	1,611	1,239,536	769
Asturias	319	198,965	624
Total	2,484 acres	1,823,314 lbs.	734 lbs.

The Quality of crop 1962 was judged well in all districts of production. The yield has been notably increased as compared against 1961. All hops have been purchased by the home brewing industry, which paid Ptas. 117.— per kilo (DM 390.— per 50 kilos) for hops grade I.

During the spring of 1962, the **Uncovering** and **Cutting** of the hops could be finished under favourable weather conditions. The hops showed a good growth at the beginning of the season even if the development was somewhat retarded by cool weather, as compared to former years. Warmer weather in June and July benefited the growth of the hops, but a severe dryness was experienced. Urgently necessary rainfalls came only during the first half of July. **Pests** and **Diseases** were carefully controlled, so that the hop yards were quite healthy despite the unfavourable weather. Welcome rainfalls and higher temperatures in August were of good influence for the quality of the crop, especially as the harvest was delayed by 8 to 10 days as a consequence of the retarded growth. The hops reached the height of the trellises at the beginning of July but formed only a small overhang. **Bloom** started at the end of July / beginning of August. **Picking** started on September 7th and was finished on October 7th. About 80% of the crop are handled by picking machines.

The quota of production for crop 1962 had been fixed at 119.5%. Demand had been registered as follows:

The total crop was greater than anticipated and contracts could be fulfilled to 90%. The crop was graded as follows: 17% grade I, 63% grade II, 20% grade III. The average price was fixed at £29.10.— per cwt. (DM 325.— per 50 kilos) as against £35.10.— (DM 390.— per 50 kilos) in 1962. Demand for the coming crop 1963 has been registered as follows:

The quota of production for crop 1963 has been settled at 110%.

Greece

Spain

**England** 

Exports of English Hops Crop 1962 Sentember 1st 1962 - March 31st 1963

Septe	mper 1st, 1962	: — March 31st, 1903	
Country	cwts.	Country	cwts.
Angola	18	b. f	16,980
Australia	357	Malayan States	119
Belgium	1,708	Malta	112
Brit. Guayana	20	Netherlands	16
Canada	53	Nigeria	646
Ceylon	ĺ 104 ĺ	Pakistan	3
Denmark	215	PacifIslands	2
Germany W	76	Portugal	12
Fiji Islands	15	Rhodesia/Nyassa	12
Finland	10	Singapore	102
France	14	Southafric. Republ	38
Ghana	52	Sweden	9
India	25	Tanganyika	22
Ireland	14.229	U. S. A	89
Jamaica	1	West Samoa and Ross	1 1
Kenya	83	Total	18,163
c. f	16,980		10,103
0.1	10,800	1 cwt. = 50.8 kg	

English exports of hops crop 1961 until March 31st, 1962 = 16,715 cwts.

The following quantities of hops crop 1962 were imported from September 1st, 1962, to March 31st, 1963:

Country	cwts.	Country	cwts.
Germany West Belgium U. S. A. Netherlands Jugoslavia Czechoslovakia c. f.	910 3,607 147 4,106 565	b. f	12,345 2 185 185 1,157 13,874

English imports of hops crop 1961 until March 31st, 1962 = 20,948 cwts.

CALIFORNIA. In the district of Sacramento hop yards developed well under fayourable weather conditions. The usual light infection of Downy Mildew during the start of growth was carefully controlled. This disease disappeared soon under warm weather and sunshine and the vines could develop well. Precipitations were distributed as follows:

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
ı	0.95	7.60	1.84	0.19	0.06	0.01		0.13	0.11 inch.

Up to three sprayings were effected against Red Spider. The hops reached the height of the trellises around July 5th and were in Bloom a fortnight later. The vines showed a good overhang and there were no pointed vines to be noted. Picking started around August 10th and was finished at the end of that month under warm and dry weather conditions. The Quality of the hops was judged very good. The cones were of extraordinary green colour with a rich content of light and fine yellow lupulin. The crop was graded as follows: 80% grade I, 15% grade II, 5% grade III.

WESTERN OREGON. The hops showed a better growth on the average despite generally cooler weather than normal. Precipitations were as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
1.11	3.97	5.65	3.03	2.11	0.69		0.70	1,53 inch.

The hop yards suffered no damage by weather, pests or diseases. Normal control measures were effected against Downy Mildew and two sprayings were necessary to control Pests. The vines reached the height of the trellises around the end of June and showed a good overhang. Burrs appeared somewhat late. The hops were in Full Bloom around July 25th. The Formation of the Cones was somewhat hampered at the beginning whereas the Ripening of the hops suddenly became general. Cones on the lower third of the vines ripened normally.

The Picking of Fuggle hops started in mid-August and was finished by the end of that month. The harvest of Clusters and other varieties started during the first days of September and was completed around September 20th. There was no lack of labour and the weather during the harvest was favourable.

The Quality was judged generally as average, and the crop was graded as follows: 45% grade I, 45% grade II, 10% grade III.

U.S.A.

**EASTERN OREGON AND IDAHO.** The development of the hops was hampered by **Storms** during the spring of 1962 which resulted in additional costs as the vines had to be trained once again. There were only minimal damages by **Frosts.** The weather was cooler than normal especially in May with repeated light rainfalls and **Wind.** Precipitations were distributed as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
1.00	0.77	1.27	0.92	2.90	0.12	0.04	0.12	0.40 inch.

**Downy Mildew** was more apparent than in normal years and **Aphids** had to be controlled carefully whereas **Red Spider** was less evident. The growth of the vines was retarded by cool weather especially during May and June. On the average, five to six sprayings against Downy Mildew and two sprayings against Aphids and Red Spider were effected.

The hops reached the height of the trellises around June 25th. First **Bloom** started on early varieties at that time whereas bloom set in on late varieties around July 10th. Early hops showed a somewhat weaker development of vines, but had a very good set of cones. Late hops had formed a good overhang and a rich set of cones. The **Ripening** of the hops was more uniform than usual and cones ripened on the lower third of the vines as well.

**Picking** started on August 22nd and was finished under good weather conditions on September 21st.

The Quality of the hops was better than the year before, both regarding colour as well as lupulin and size of cones. The crop was graded as follows: 65% grade II, 30% grade III, 5% grade III.

<u>WASHINGTON</u>. In the district of **Yakima** the hops suffered from inclement weather during the start of the season. Cold weather during the spring time retarded growth and the development of the plants. Cool weather persisted until July 4th. There were considerable damages by **Frosts** in some hop yards. Precipitations were distributed as follows:

Jan	. Febr.	March	April	May	June	July	Aug.	Sept.
0.1	6   1.48	0.65	0.62	1.09	0.07	0.01	0.33	0.30 inch.

**Downy Mildew** had to be controlled very carefully especially when at the end of June almost the entire district of production suffered from a severe infection of this disease. Even hop yards, which seemed to develop satisfactorily, suffered in development during the year, so that the result of the crop remained smaller than initially expected. **Aphids** and **Red Spider** were no danger as the weather was always relatively cool.

The vines reached the height of the trellises in mid-June. The stand of the hop yards was not uniform and many plants did not even reach the height of the trellises. Early varieties were in **Bloom** around June 25th, whereas blooming started on late hops at the beginning of July. The hop yards showed scarcely any overhang. The cones on the lower third of the vines could mature better than in earlier years.

**Picking** started around August 23rd and was finished by mid-September. Compared to the weather during the growing season, climatic conditions during the harvest were quite good.

The **Quality** of the hops was judged good, regarding colour and contents of lupulin and the brewing value of the hops was shown to be higher than in preceding years. The crop was graded as follows: 45% grade I, 40% grade II, 15% grade III.

The demand for contracts remained constant during the year 1962, but met an already rather sold out market for crop 1962. Especially at the beginning of the growing season when crop prospects for 1962 were not judged favourably, farmers remained reluctant. Contracts for crop 1962 alone were scarcely obtainable. In general, contracts were closed for three years. At the beginning of 1962 prices stood on a basis of 36/38/40 cents per lb for crop 1962/63/64. Very early, however, a uniform quotation of 40 cents per lb developed for all three crop year.

Free available supplies of crop 1962 had been sold to a considerable extent already in May 1962. Trading in contracts switched to the coming crops 1963/64/65 and contracts were closed on a price basis of 43 cents per lb. Farmers withheld offers, however, expecting better prices and no important sales were effected as at the same time demand decreased.

Immediately after the harvest of crop 1962, a considerable demand appeared for free hops of this crop. Supplies were greater than initially expected as a result of the greater bulk of the crop. Quotations were 50 cents per lb in mid-August and rose to 52 cents by the end of August 1962. The rapid sellout of existing supplies led to quickly rising quotations as a consequence of continuing demand and lower crop. Quotations reached 80 cents per lb in October. On this price basis the American market was practically sold out. Final available lots were handled at prices up to 90 cents per lb.

At the same time bids for contracts rose as well and reached 55/45/40 cents per lb for crop 1963/64/65.

About 98% of the estimated crop 1963 as well as about 85% of crop 1964 are already under contract.

Hop Market U. S. A.

Hop Acreage U.S.A.

The area planted to hops in 1962 was 29,300 acres of which 802 acres new gardens. An increase of acreage may be expected for 1963 as well which is estimated at 3,300 acres inclusive of new hop yards and re-activated idle gardens.

Hop exports U.S.A.

E	-		ops Crop 1962 - January 31st, 1963		
Country	lbs.	Ztr. je 50 kilos	Country	lbs.	Ztr. je 50 kilos
Ethiopia Argentine Australia Belgium-Luxemburg Bolivia Brit. Guayana Canada Ceylon Chile Colombia Costa Rica Denmark Germany West Dominican Republic Ecuador Finland France Great Britain Ireland Italy Jamaica Japan Jugoslavia Rep. Congo (Brazzav.)	15,433 15,432 14,782 336,489 45,129 386,660 2,031 1,695,149 27,000 881 872,129 21,975 241,352 1,373,260 17,006 48,818 4,296 175,562 434,398 1,015,045 29,923 6,892 863,954 68,343 55,386	140 140 134 3,052 409 3,508 18 15,378 245 8 7,912 199 2,189 12,459 154 443 39 1,593 3,941 9,209 271 63 7,838 620 503	b. f.  Malaya  Mexico  Moçambique  Nicaragua  Netherlands  Norway  Austria  Pakistan  Panama  Peru  Philippine Isl.  Portugal  El Salvador  Singapore  Union of South Africa  Sweden  Switzerland  Trinidad  Czechoslovakia  Turkey  Uruguay  Venezuela  Other Countries  Total	7,767,325 3,996 1,770,889 5,000 4,451 569,143 15,200 22,046 10,061 41,102 312,215 140,000 24,134 31,889 2,161 124,896 48,591 180,532 4,365 714,205 56,499 15,509 406,670 100,374	70,465 36 16,066 45 40 5,163 137 200 91 373 2,832 1,270 220 289 20 1,133 441 1,638 39 6,479 513 141 3,690 910 112,231
c. f	7,767,325	70,465	110.23 lbs. = 1 Ztr. zu 5	50 kg	

Hop imports U.S.A.

Hop Imports U.S.A Crop 1962 September 1st, 1962 — January 31st, 1963								
Country	lbs.	Ztr. je 50 kg						
Germany West Jugoslavia	2,044,140 1,520,778 14,842	18,544 13,887 135						
Total	3,589,760	32,566						

Canada

Hops are produced in small quantities in the interior of Canada besides the most important district of KAMLOOPS in British Colombia.

In 1962 the weather was favourable for the development of the hops as a consequence of sufficient rainfalls and higher temperatures than normal. Precipitations were distributed as follows:

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Kamloops	20.72	1.69	1.51	0.38	1.53	0.26	1.65	1.84	1.16 inch.

Up to eleven sprayings were effected against **Pests** and **Diseases**. The plants reached the height of the trellises during the last decade of June and developed a strong overhang. **Bloom** started on July 15th, The cones on the lower third of the vines ripened well.

Picking started on August 27th and was finished under good weather conditions on October 2nd. The entire crop is handled by nine picking machines.

The Quality of the hops was judged better than in 1961. The somewhat larger sized cones showed more lupulin than the year before but were sometimes off-colour as a result of the long drawn out harvest. The crop was graded as follows: 90% grade I, 6% grade II, 4% grade III.

The area planted to hops was scarcely increased as against former years but a considerably greater crop could be gathered into the barns.

In the district of <u>NAGANO</u> the hops developed very good both in low valley locations as well as in higher locations under favourable weather until the end of April. Considerable precipitations and low temperatures in May and June did not benefit growth.

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Precipitations	65.8	39.8	24.1	61.0	119.1	196.9	124.5	46.2	32.1 mm
Temperatures	—0.9	0.6	3.0	10.5	16.1	18.5	24.4	25.6	21.1° C

Up to twelve sprayings were effected against **Downy Mildew** and **Red Spider.** The plants reached the height of the trellises in mid-June and were in **Bloom** by the end of that month. Under warmer weather which started at the beginning of July, growth developed better. Cones ripened well on the lower third of the vines. **Picking** started on July 25th and was finished under good weather conditions on August 25th.

It is regrettable to note that in 1962 for the first time an attack of Verticillium Wilt appeared on an acreage of 7 acres planted to early hops. The variety "Shinshu-Wase" which constitutes the bulk of the hop gardens in Japan was not infected.

In the district of **HOKKAIDO** the development of the hops was hampered and retarded by cool weather.

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Precipitations	135.3	68.4	91.8	69.9	20.8	55.8	124.0	357.4	106.7 mm
Temperatures	—3.6	—3.9	—0.8	8.4	12.7	16.1	20.1	20.6	17.7º C

It became necessary to spray up to twelve times against **Downy Mildew** and up to four times against **Red Spider.** The hops reached the height of the trellises during the second half of June and were in **Bloom** in mid-July. Hop yards showed a less good stand than in earlier years. The **Formation** of the **Cones** as well as the **Ripening** of the hops was hampered by excessive rainfalls in July and August. Local damages were occasioned by two **Typhoons**, at the beginning of August. **Picking** started on August 8th and was finished on September 4th under good weather conditions. There was some scarcity of labour.

The quality of the Japanese hops, crop 1962 was judged better than the year before in Nagano, but not so good as usual in Hokkaido. The crop was graded as follows: 82.5% grade I, 8.4% grade II, 9.1% grade III. All hops were purchased by sponsering breweries at a price of Yen 29,200.— per 50 kilos (DM 325.— per 50 kilos). The automatic picking of hops in Japan was effected by about 2,000 machines of home construction which handled only about 50% of the crop. The construction of bigger machines is now under consideration.

In the summer of 1961/62 precipitations were distributed as follows:

	1961	19	162	
October	November	December	January	February
51.0	1.2	10.0	0.5	6.5 mm

The plants could develop normally. On the average, two sprayings were effected against **Pests** and **Diseases**. The vines reached the height of the trellises at the beginning of September and were in **Full Bloom** by mid-December 1961. The hops had grown a good overhang and the cones ripened on the lower third of the vines. The **Harvest** extended from the middle of February until the middle of March 1962 in the districts of **Rio Negro** and **Neuquén** whereas picking started in **El Bolson** (Chubut) on March 8th, to be finished on March 20th. Five picking machines are in operation and handled about 40% of the crop.

In general, the cones were better in size and colour than the year before. The crop was graded as follows: 90% grade I, 9% grade II, 1% grade III. The hops were purchased entirely by sponsering breweries. Prices were between Pesos 210.— and Pesos 240.— per kilo (DM 525.—/600.— per 50 kilos, basis exchange DM 1.— = Pesos 20.—).

Climatic conditions during the Southern summer 1961/62 were too warm, so that the plants had no sufficient winter dormancy. Rainfalls in the spring were insufficient and in October 1961 at the time, when the growing of the plants ought to start, the weather was too cold. The summer itself was too warm and dry and the hop yards were irregated as far as possible. Precipitations were as follows:

		1961	i	1962			
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
2.77	1.99	2.87	1.66	2.89	2.53	1.42	3.97 inch.

Japan

**Argentine** 

Union of South Africa The hops reached the height of the trellises by the end of December and were in **Full Bloom** in January. The vines, however, remained pointed and showed little overhang. **Cater-pillars** occasioned local damages during the spring time but were controlled by sprayings.

The harvest was effected under good weather conditions from February 13th until March 7th 1962. There is one picking machine in operation which handles 30% of the crop and for the rest there was no lack of labour.

The hops of crop 1962 were judged better than the year before. The cones had good colour and showed a rich content of lupulin. The crop was graded as follows: 40% grade I, 50% grade II, 10% grade III. All hops were purchased by the brewing industry. The price to farmers was 52.5 cents per Ib (DM 324.— per 50 kilos).

**New Zealand** 

The development of the hops during the summer of 1961/62 suffered partly under the influence of the weather. Rainfalls were as follows:

_		1961		1962			
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
5.01	9.11	2.35	1.38	1.29	6.54	0.98	5.85 inch.

Higher temperatures appeared already at the end of September and persisted, except a short interruption during the second half of November 1961, during December and January 1962. Temperatures turned to normal in February 1962. The appearance of **Red Spider** which had to be mentioned already at an earlier occasion was increased as a consequence of the hot time. Several hop yards were infected and part of the crop were abandoned. For the time being, however, no sprayings against **Pests** and **Diseases** are effected.

The hops reached the height of the trellises by the end of December and were in **Bloom** about 14 days later than normal at the beginning of January 1962. The vines showed a good overhang and the cones ripened on the lower third of the vines. **Picking** started around February 20th and was finished during the third week of March. About one third of the crop was harvested by machines and for the rest there was some lack of labour.

The hops were not judged so good as usual regarding colour. The cones were of larger size than normal and less well closed but showed a somewhat bigger content of lupulin than the year before. The entire crop was judged as grade I. The price for American varieties was sh 5/— per lb whereas for new varieties a price of sh 5/3 per lb was paid (DM 310.—/325.— per 50 kilos net).

### **Crop 1963**

The following informations have been received up to now from the Southern Hemisphere where hops are picked in March:

**New Zealand** 

The crop 1963 is estimated at about 6,750 cwts. The acreage has been increased by about 4% as against 1962.

The crop result is expected to be lower than in March 1962. The weather during the vegetative period of the hops was wet and hop yards suffered from **Root Rot**. It is said that this disease would have resulted in much greater damage if not during the meantime resistent varieties had been planted. The **Quality** of the crop is judged well.

The entire hops are destined to breweries in New Zealand. Some exports take place only sporadically, if corresponding balances of hops are available. About 240 cwts. had been exported from crop 1962.

Union of South Africa

The hops came well trough the mild winter 1962/63. The plants were off to a good start in September 1962 but development was retarded by excessive low temperatures during the second half of October. The weather in November was very favourable whereas dryness in December 1962 led to the irrigation of hop yards. **Caterpillars** occasioned considerable local damages in December but could be held in check. Rainfalls were distributed as follows:

1962						1963	
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
9.52	0.60	6.29	4.19	0.80	3.98	1.30	11.86 inch.

The growing season was more windy than normal. Two sprayings were effected against **Pests** and **Diseases**. The hops reached the height of the trellises on January 7th 1963 and were in **Full Bloom** between January 15th and 21st. On the average the vines had formed a good overhang and the cones on the lower third of the plants ripened well.

**Picking** started on February 18th, 1963, and was finished on March 25th under generally cool and cloudy weather. The harvest was interrupted for five days by **Inundations** on March 7th and 8th. One picking machine handled 25% of the hops.

The **Quality** was judged well. The hops had 1% more humulon as the year before. The cones were of good colour and had a rich content of lupulin. The crop was graded as follows: 60% grade I, 35% grade II. The final 5% had to be judged as grade III as a consequence of **Overripeness**. A crop of 201,253 lbs. was harvested on an area of 236 acres which included 45 acres of new hop yards. The price to farmers was between 42.5 cents and 45 cents per lb (DM 262.—/278.— per 50 kilos).

In <u>TASMANIA</u> the harvest of about 2,800,000 lbs. resulted on an area of 1,487 acres: The notable yield of 1,880 lbs. per acre was obtained despite a growth which did not exactly satisfy as especially the set on the lower third of the vines was sparse. The hops reached the height of the trellises at the end of December 1962. One preventive spraying was effected against **Red Spider**. It is regrettable to note that in most districts of production first signs of **Verticillium Wilt** appeared.

The weather was favourable during the picking. The **Quality** was judged about equal to the year before.

VICTORIA. No definite news have been received up to now. The crop 1963 is expected to reach the volume of the year before.

In the districts of <u>RIO NEGRO</u> and <u>NEUQUEN</u> the hops could develop normally. There were no frost damages but the hop yards suffered under **High Winds** and there were some local damages by **Root Rot**. Precipitations were distributed as follows:

	1962	1963		
October	November	December	January	February
15.5	6.0	3.5	23.3	23.1 mm

Two sprayings were effected against **Pests** and **Diseases**. The plants reached the height of the trellises during the first half of November 1962 and were in **Full Bloom** by the end of December 1962 / beginning of January 1963. The vines formed a good overhang and the cones ripened on the lower third of the plants. **Picking** started in mid-February and was finished under generally good weather conditions around March 20th, 1963. Four picking machines are in operation which handled about 60% of the crop.

The hops of crop 1963 corresponded to the crop of the year before regarding **Quality** but the colour was judged better. The crop was graded as follows: 90% grade I, 10% grade II. On an acreage of 297 acres a crop of 176,368 lbs. was harvested (594 lbs. per acre). Some hop yards have been ploughed out.

Difficulties arose during the sale of the harvest. Generally, farmers did not accept bids from Pesos 300.— to Pesos 350.— per kilo. About 70% of the crop are estimated still unsold on farms. Hops delivered are supposed to be sold without a firm pricing basis but it is assumed that a minimum price of Pesos 300.— per kilo had been agreed upon (DM 465.— per 50 kilos).

In the PROVINCE of BUENOS AIRES a hop acreage of 99 acres is maintained in the district of Comandante Nicanor Otamendi. The hops were off to a normal start during the growing season 1962/63 and showed a good development. This, however, came to a stop, when the vines had reached a height of about 3 m. This is believed to have been the effect of the application of a weed killer which was applied from the air over the surrounding weat acreage. It appears that as a consequence of insufficient attention the hop yards, too, were dusted. In addition the hop yards were damaged by a heavy infestation of Downy Mildew which practically finished the destruction of the crop. Precipitations were as follows:

	1962		1963			
September	October	November	December	January	February	
63	54	38	48	27	85 mm	

There are two picking machines available which did not come into operation that year.

The hop acreage in the other district of **Sierra de la Ventana** has now shrunk to abt. 20 acres. Hop yards which showed an initial good development brought a failure of crop, following a drought as never before experienced in this district. The watercourse serving for irrigation of the hop yards dried out also so that in this district too, no crop could be harvested.

Australia

Argentine

## Growth 1963 in Germany

The winter of 1962/63 brought persistant cold weather down to —25° C and ample snowfalls. An uninterrupted snow cover remained over the land from the end of November 1962 until March 1963. It protected fields and hop yards so that in all districts of production no damages appeared when the hops were uncovered and cut. Temperatures rose only slowly during the spring of 1963 so that the water could well enter the ground which improved moisture and subsoil water. Cooler temperatures and local **Frosts** appeared until the end of March 1963 and retarded spring work.

HALLERTAU. The Uncovering and Cutting was retarded by weather conditions but this work could be finished quicker in part by mechanisation. The plants showed a good set of young shoots, but nights were still too cool during the first half of April. Very favourable weather since April benefited growth. The hop yards were well taken care of and amply manured. Up to ten preventive sprayings were effected against Pests and Diseases.

The favourable weather continued through May and June 1963. Warm and sunny days as well as timely rainfalls resulted in a good development of the vines. The plants generally had reached a height from 5 m and sometimes 6 m in mid-June. They had reached the height of the trellises in favoured locations and laterals were ample. Hop yards appeared strong and healthy generally and the development was about a fortnight earlier than the year before. The height of the plants was exceptional for the time of the year.

TETTNANG. This district was not especially favoured by weather conditions. Spring Work could be effected only late and was finished about the end of April as a consequence of Snowfalls at the end of March and Frosts during the first half of April. The weather remained somewhat too cool still during May. Warmer temperatures benefited the growth only since the end of May / beginning of June. Local lack of moisture was relieved by rainfalls at the beginning of June.

The hop yards were well manured and tended on the average. Up to four sprayings were effected. By mid-June, the hop yards showed a uniform and healthy aspect. The vines had reached a height of 4.5 to 5 m occasionally even until 5.5 m. The vines were strongly developed and showed a normal set of laterals. The total stand, however, was advanced only by a few days as compared to the year before.

<u>SPALT.</u> The **Uncovering** and **Cutting** started by the beginning of April and was finished under favourable weather conditions during the second half of that month. Hop yards were well manured and carefully tended. Up to five preventive sprayings were effected against **Pests** and **Diseases**.

The weather in Spalt was favourable for the development of the plants. The growing force of the vines was not even hampered by insufficient rainfalls as moderately warm day temperatures benefited growth. The necessary humidity resulted later on from rainfalls during the first half of June.

In mid-June, the hop yards had a healthy stand. The general height of the vines was between 4.5 and 5 m and locally until 5.5 m. Laterals were plentiful. The development was advanced by about 10 days as against the year before and resulted in a notable high stand of the plants for that time of the year.

HERSBRUCK GEBIRGE. Spring Work started at the beginning of April and was finished under good weather conditions during the second half of April. Warmer weather in May together with welcome rainfalls resulted in a healthy and forceful development of the hop yards which were well manured and tended. Up to four sprayings were effected against Pests and Diseases.

In mid-June, the hop yards showed a healthy and wellgrown aspect. The development was advanced by ten days against the year before. The plants had an average height of 4.5 m and sometimes up to 5 m and showed a considerable development of Laterals.

It is to be hoped that the good development of the hop yards will continue to be favoured by good weather so that a satisfactory crop will facilitate the supply of the brewing industry with hops. Hails on June 19th occasioned local damages in the Hallertau as well as in Spalt and the Hersbruck Gebirge, but remained without greater importance as compared to the total stand of the crop.

JOH. BARTH & SOHN

The compllation of this report has been made possible in many instances by data supplied from observers in many countries, which is hereby gratefully acknowledged.

Hopcon - Joh. Barth & Sohn G.m.b.H.

#### HOPFEN-CONZENTRATE

FACTORY: 8069 WOLNZACH/HALLERTAU Auenstrasse 18-20 P. O. B. 52 CABLE ADDRESS: HOPCON

TELEPHONE 0 84 42 / 7 26

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P. O. B. 331

CABLE ADDRESS: HOPCON

TELEPHONE 44 45 51 / 3

TELEX: 06/22030

The economical advantages which result from the use of hop concentrates instead of raw hops in brewing have led to a considerable increase of the usage of hops in concentrated form. In order to correspond to the increased demand by the manufacturing of hop concentrates of high quality, the co-operation of the two firms of

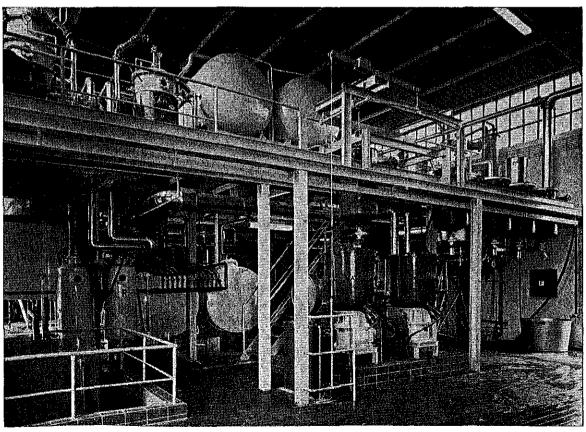
### WHITE, TOMKINS & COURAGE LTD., LONDON,

which have been manufacturing hop concentrates already since decades, and

### JOH. BARTH & SOHN, NÜRNBERG,

Hop Dealers since 1794,

has led to the establishment of a modern installation for the concentrating of hops which is situated centrally in Wolnzach within the heart of the Hallertau, the most important German district of hop growing.



Partial view of the plant at Wolnzach

The extraction of the raw hops in our plant is done in a very careful and perfect way. The resins of the hops are extracted by organic solvents so that all valuable components for the brewing are maintained within the naturally pure concentrated finished HOPCON.

Our range of production includes:

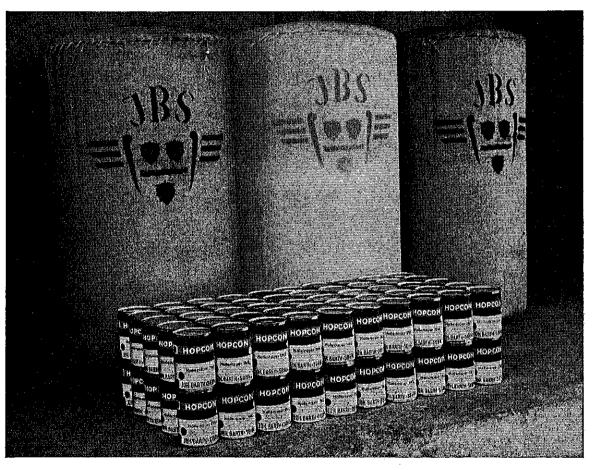
- Delivery of concentrates manufactured from our own stocks of choicest hops from all proveniences.
- The custom extraction of brewery owned hops.

All concentrates are delivered under indication of crop year and provenience. In our factory only choicest hops are extracted as for the manufacture of concentrates from hops we are of the following opinion:

# That which has not been within the hops cannot be expected to be found in HOPCON.

Special demands by breweries regarding a certain relation in the usage of HOPCON as against raw hops in the brewing process can be complied with. According to this we are in a position to deliver the following qualities:

HOPCON-STANDARD (1 kilo of HOPCON = abt. 4 kilos of raw hops)
HOPCON-SUPER (1 kilo of HOPCON = abt. 6 kilos of raw hops)
HOPCON-EXTRA (1 kilo of HOPCON = abt. 8 kilos of raw hops)



100 cans correspond to the YIELD after extraction of two ballots of 125 kilos of hops each = 100 kilos of HOPCON-Standard. Between the two ballots a third one ought to appear to represent the quantity of hops which corresponds to the BREWING VALUE of 100 kilos of HOPCON-Standard.

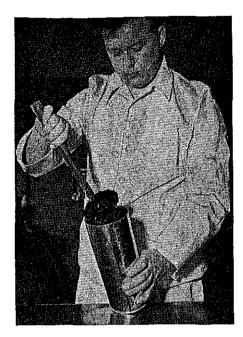
Hops are the most expensive raw material in brewing but their usage in brewing is one of the least rational. Part of the bitter value is lost with the spent hops. Higher losses still result from sedimentation especially by precipitation with the proteins.

The usage of HOPCON is recommended especially by reason of more rational results of hopping as shown by the following details:

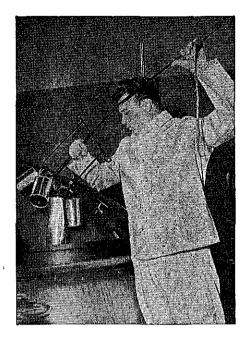
- 100 kilos of HOPCON-Standard, under an average yield of 40%, result from the extraction of 2 ballots = 250 kilos of raw hops.
- 100 kilos of HOPCON-Standard used on a ratio of 1 kilo of HOPCON = 3.5 to 4 kilos of raw hops correspond to an average quantity of 3 ballots = 375 kilos of raw hops.

The best usage of HOPCON results from short boiling times within the wort. The fact that by the extraction of the raw hops already the formation of Iso-components has been stimulated, adds to the advantages of HOPCON in brewing.

The costs for the extraction of hops are more than compensated by the advantages through the usage of HOPCON in brewing.



HOPCON cans under preparation for boiling



HOPCON cans ready for suspension into the wort

HOPCON is quickly and easily transferred into the boiling wort. In practical use, the cans are either opened or holes are punched into same according to convenience. The cans are then suspended into the boiling wort so that HOPCON may be absorbed in small droplets for prompt solution.

In addition to the advantages resulting from the more rational usage of hops in concentrated form, additional economies are found as follows:

- HOPCON does not change its quality within the can. In contrast to this, the loss in brewing value while storing raw hops cannot be avoided even under the best conditions of storage.
- HOPCON takes much less storage space and less refrigeration than the corresponding quantity of raw hops.
- Cost of transportation and freight is lower for HOPCON than for the corresponding quantities of raw hops.
- The removal of spent hops, which becomes a problem especially in big towns and cities is no worry if HOPCON is used.

As the economical advantages of hop concentrates are now generally recognized, mostly the question of the influence of hop concentrates on the quality of beer is under discussion. Practical experiences during the last years have shown that, even brewing beer with a hopping rate up to 100% of hop concentrate leaves no disadvantage in the taste of beer. On the contrary, in many cases it has been verified that better foam stability has resulted as well as a finer bitter taste of the beer.

The usage of HOPCON shows advantages under all conditions. Impressive economies result if hop prices are high whereas, if hop harvests are big with resulting lower prices for hops, it is possible to establish a stock for longer periods. In this way the usage of hop concentrates takes importance as a factor of stabilizing the often oscillating hop market which may be to the advantage both of breweries and hop farmers.

Hopcon – Joh. Barth & Sohn G.m.b. H.

