

# Joh. Barth & Sohn

## HOPFEN seit 1794

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## Hop Report 1959/60

The world economy, during the first semester 1959, was still overshadowed by the events of 1958. The development improved in all industrial countries during the second semester and this reflected, too, upon the situation in non-industrial countries.

**Economical  
Situation**

On November 20th, 1959, an agreement was signed in Stockholm by which Denmark, Great Britain, Norway, France, Portugal, Sweden and Switzerland created the "European Free Trade Association" (EFTA). This agreement became effective on July 1st, 1960.

Full activity by the German industry resulted in a distinct lack of labour. The rate of discount was increased on September 4th, 1959, by ¼%, on October 23rd, 1959, by 1% and on June 3rd, 1960, by another 1% and stands now at 5%. Measures for the restriction of available credits followed.

World production of beer in 1959 shows an **Increase** of about 14.5 million bbl. against 1958. The percentage rates of increase are as follows: Western Europe + 5.3%, Eastern Europe + 2.4% North America + 3.8%, Central and South America unaltered, Africa + 4.4%, Asia + 25.8%, Australia — 0.8%.

**Production of  
Beer**

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.)	1 gall. (USA.) = 3.7853 Liter
0.2201 gall. (Brit.)	1 gall. (Brit.) = 4.5435 Liter
1 hl = 100 Liter = 26.42 gall. = 0.8523 bbl.(USA.)	1 bbl. (USA.) = 31 gall. = 1.1734 hl
22.01 gall. = 0.6114 bbl.(Brit.)	1 bbl. (Brit.) = 36 gall. = 1.6356 hl
1 kg = 2.20462 lbs.	1 lb. = 0.45359 kg
1 shortton (sht) = 2000 lbs. = 907.185 kg	
1 longton (lgt) = 2240 lbs. = 1016.048 kg	
1 metr. Tonne = 20 Ztr. = 1000 kg = 1.10231 shorttons = 0.98419 longtons	
1 Ztr. = 50 kg = 110.23 lbs. = 0.984 cwt. (Brit.)	1 cwt. (USA.) = 100 lbs. = 45.36 kg = 0.9072 Ztr.
	1.102 cwt. (USA.) = 112 lbs. = 50.8 kg = 1.016 Ztr.
1 quarter (qr) = 400 lbs. = 181.44 kg (barley)	1 Ztr. = 0.27555 qr.
1 bushel (bu) = 48 lbs. = 21.77 kg (barley, malt)	1 Ztr. = 2.2965 bu.
56 lbs. = 25.4 kg (corn, millocorn)	1 Ztr. = 1.9685 bu.
DM 1.— = US \$ —.23 809 / DM 4.20 = US \$ 1.— / US \$ 2.80 = DM 11.76 = £ 1.—	
1 mm precipitations = 1 Ltr. of water per m <sup>2</sup> , 1 mm = 0.04", 1" = 25 mm.	

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Production of Beer 1959					
Country	1000 bbl. of 31 gall. each		Country	1000 bbl. of 31 gall. each	
Germany W. 43,434 East 13,636 *)	57,070		b. f.	131,374	185,027
England . . . . .	35,466		Martinique . . . . .	13	
USSR *) . . . . .	17,044		<b>America</b>		131,387
France . . . . .	15,966		Belgian Congo . . . . .	1,270	
Belgium . . . . .	11,718		Algiers . . . . .	1,023	
Czechoslovakia . . . . .	11,590		Union of South Africa	661	
Poland . . . . .	5,605		Rhodesia *) . . . . .	469	
Austria . . . . .	4,161		British East Africa . . . . .	294	
Denmark . . . . .	3,584		Morocco . . . . .	213	
Netherlands . . . . .	2,928		Ivory Coast . . . . .	187	
Spain . . . . .	2,915		Cameroons . . . . .	187	
Hungary . . . . .	2,812		Nigeria . . . . .	144	
Switzerland . . . . .	2,767		Senegal . . . . .	102	
Ireland . . . . .	2,666		Egypt . . . . .	95	
Sweden . . . . .	1,807		Sudan *) . . . . .	68	
Italy . . . . .	1,790		Ghana *) . . . . .	64	
Roumania *) . . . . .	1,364		Angola . . . . .	61	
Jugoslavia . . . . .	1,076		Moçambique . . . . .	57	
Finland . . . . .	920		Tunis . . . . .	51	
Norway . . . . .	722		Ethiopia . . . . .	47	
Luxembourg . . . . .	386		South West Africa . . . . .	44	
Greece . . . . .	349		French Equ. Africa . . . . .	38	
Portugal . . . . .	281		Madagascar . . . . .	13	
Malta *) . . . . .	27		<b>Africa</b>		5,088
Iceland . . . . .	13		Japan . . . . .	7,363	
<b>Europe</b>		185,027	Philippine Islands . . . . .	562	
U.S.A. . . . .	93,128		Vietnam . . . . .	511	
Canada . . . . .	9,857		China *) . . . . .	426	
Mexico . . . . .	6,825		Singapore . . . . .	309	
Brazil . . . . .	6,179		Turkey . . . . .	260	
Columbia . . . . .	5,887		Indonesia . . . . .	151	
Argentine . . . . .	2,326		Israel *) . . . . .	128	
Venezuela . . . . .	1,875		India . . . . .	78	
Cuba . . . . .	1,327		Hongkong *) . . . . .	66	
Peru *) . . . . .	972		Formosa *) . . . . .	65	
Chile *) . . . . .	858		Iran . . . . .	60	
Uruguay . . . . .	614		Thailand . . . . .	49	
Ecuador . . . . .	469		Ceylon . . . . .	44	
Panama . . . . .	163		Cyprus . . . . .	39	
Bolivia . . . . .	158		Lebanon . . . . .	28	
El Salvador . . . . .	153		Iraq . . . . .	25	
Guatemala . . . . .	145		Syria . . . . .	17	
Dominican Republic . . . . .	110		Pakistan . . . . .	13	
Honduras . . . . .	102		<b>Asia</b>		10,194
Costa Rica *) . . . . .	64		Australia . . . . .	8,845	
Jamaica *) . . . . .	56		New Zealand . . . . .	1,843	
Paraguay . . . . .	43		Tahiti . . . . .	10	
Nicaragua . . . . .	36		<b>Australia</b>		10,698
Trinidad *) . . . . .	27		Total		342,394
c. f.	131,374	185,027	*) estimate		

**Beer Output  
in Western  
Germany**

Output of beer in Western Germany during the calendar year 1959 amounted to . . . . . 42,005,349 bbl.  
Production of beer in the Western sector of Berlin for the same period was 1,428,739 bbl.  
Total 43,434,088 bbl.

These figures include 26,160 bbl. delivered tax-free to the occupation forces (1958 = 27,494 bbl.) as well as exports and other sales against foreign currency totalling 984,254 bbl. (1958 = 915,256 bbl.).

## Crop 1958 (Supplement)

Complete figures of imports and exports of hops crop 1958 during the period from September 1st, 1958, to August 31st, 1959, can now be stated as follows:

	Import	Export
Germany . . . . .	2,375,897 lbs.	13,334,523 lbs.
Belgium . . . . .	3,369,070 lbs.	1,233,253 lbs.
England . . . . .	530,317 lbs.	5,558,789 lbs.
U.S.A. . . . .	5,253,011 lbs.	18,445,227 lbs.

The world hop crop of 1958 was greater than the calculated demand for hops for the world production of beer. The crop was almost completely purchased by the brewing industry and served in part to replenish inventories. In Germany, there remained about 825,000 lbs. of hops unsold in hands of the cooperatives.

## Crop 1959

The winter of 1958/59 was mild and brought not enough moisture. The early spring was warm and dry so that work in the hop gardens as well as **Uncovering** and **Cutting** started early and were speedily finished under favourable weather conditions. Generally, the growth of the young shoots was much too rapid. This development, however, was hampered by a **Cold Wave** in April 1959 which resulted locally in **Night Frosts** until the beginning of May 1959. **Pests** and **Diseases** were controlled in the usual way. The summer of 1959 was too dry. The deeply rooted hop plant, however, was able to resist the dry periods and benefited by occasional rainfalls. **Verticillium Wilt** was to be noted in the Hallertau in spite of the dry weather and has gained extension.

**Growth of the  
Hops Crop 1959  
in Germany**

The hot weather in July and August 1959 was interrupted by welcome precipitations so that the hops could develop well until the formation and the ripening of the cones.

The hops of crop 1959 came extremely dry into the barns as a consequence of low precipitations during growth and harvest. The hops were more brittle than customary. The cones were generally of average size, well formed and closed and had fine sprigs. There were generally no vestiges of pests or diseases with the exception of occasional **Wind Whipping**. Lupulin was very healthy, of fine yellow colour and good aroma.

The hops of crop 1959 were characterised by a considerable variance in content of lupulin which was to be noted even among lots from hop yards of adjoining locations. In spite of the sunny weather during the growth, bitter values generally were lower than those of 1958.

**Weather data from the Experimental Hop Farm Hüll/Hallertau**

1959	March	April	May	June	July	August	Sept.
Precipitations per month (mm)	27	78	95	105	124	92	20
Monthly average of air temperature °Celsius	5.2	8.7	12.3	15.4	18.2	15.8	11.9
Maxima of air temperature °Celsius	18.0	22.5	24.5	28.0	32.4	28.0	26.0
Minima of air temperature °Celsius	-3.6	-6.5	-2.0	1.6	7.5	1.5	-1.0
Monthly average of relative air humidity %	84	76	74	76	78	83	73
Other data:							
Snowfall	—	1 day	—	—	—	—	—
Hoarfrost	15 days	8 days	1 day	—	—	—	3 days
Thunderstorm	—	1 day	4 days	3 days	5 days	6 days	1 day
Storm	—	1 day	—	—	—	—	—

## Acreage, Yield and Production 1958 and 1959

	Acreage 1958 Acres	Yield Pounds per acre	Production 1958 Pounds	Acreage 1959 Acres	Yield Pounds per acre	Production 1959 Pounds
Hallertau . . . . .	14,453	1,869	27,009,988	14,646	1,948	28,528,075
Spalt . . . . .	2,441	1,585	3,869,845	2,387	1,536	3,666,029
Hersbruck . . . . .	1,695	1,461	2,476,758	1,525	1,601	2,442,146
Jura . . . . .	452	1,439	650,577	445	1,798	800,049
<b>Bavaria . . . . .</b>	<b>19,041</b>	<b>1,786</b>	<b>34,007,168</b>	<b>19,003</b>	<b>1,865</b>	<b>35,436,299</b>
Tettwang . . . . .	1,969	1,789	3,521,738	1,940	1,715	3,327,954
R.H.W. . . . .	507	1,400	709,661	465	1,280	595,242
Baden . . . . .	82	1,473	120,812	82	1,175	96,341
Rheinpfalz . . . . .	74	1,573	116,403	86	874	75,177
<b>Germany West . . . . .</b>	<b>21,673</b>	<b>1,775</b>	<b>38,475,782</b>	<b>21,576</b>	<b>1,832</b>	<b>39,531,013**)</b>
<b>Germany East . . . . .</b>	<b>2,347</b>	<b>939</b>	<b>2,204,600</b>	<b>2,842</b>	<b>1,029</b>	<b>2,924,733</b>
Saaz (Zatec) . . . . .	15,889			15,889	607	9,645,125
Auscha (Ustek) . . . . .	3,707			3,707	714	2,645,520
Other Districts . . . . .	667			667	1,239	826,725
<b>Czechoslovakia . . . . .</b>	<b>20,263</b>	<b>713</b>	<b>14,440,130</b>	<b>20,263</b>	<b>647</b>	<b>13,117,370</b>
Alsace . . . . .	3,163	1,255	3,968,280	3,163	1,282	4,056,464
Dep. Côte d'Or . . . . .	321	1,071	343,918	321	687	220,460
Northern France . . . . .	467	1,298	606,265	529	1,615	854,283
Lorraine . . . . .	62	889	55,115	37	1,490	55,115
<b>France . . . . .</b>	<b>4,013</b>	<b>1,239</b>	<b>4,973,578</b>	<b>4,050</b>	<b>1,281</b>	<b>5,186,322</b>
Alost . . . . .	791	1,650	1,305,123	791	1,672	1,322,760
Poperinghe . . . . .	1,458	1,650	2,406,321	1,483	1,710	2,535,290
Vodelée . . . . .	37	1,102	40,785	49	1,125	55,115
<b>Belgium . . . . .</b>	<b>2,286</b>	<b>1,641</b>	<b>3,752,229</b>	<b>2,323</b>	<b>1,685</b>	<b>3,913,165</b>
Slovenia . . . . .	5,918	908	5,374,815	5,923	1,489	8,818,400
Backa . . . . .	1,767	730	1,289,691	3,583	523	1,873,910
<b>Jugoslavia . . . . .</b>	<b>7,685</b>	<b>867</b>	<b>6,664,506</b>	<b>9,506</b>	<b>1,125</b>	<b>10,692,310</b>
Austria . . . . .	230	810	186,399	242	865	209,437 *)
Galicia . . . . .	487	637	310,408	487	421	205,248
León . . . . .	897	483	432,873	1,055	506	533,734
Asturias . . . . .	138	325	44,864	138	400	55,225
Vasco Navarra . . . . .	10	849	8,488	10	750	7,496
<b>Spain . . . . .</b>	<b>1,532</b>	<b>520</b>	<b>796,633</b>	<b>1,690</b>	<b>474</b>	<b>801,703</b>
Switzerland . . . . .	22	1,458	32,077	22	1,253	27,558
Roumania . . . . .	1,236	713	881,840 *)	1,236	713	881,840 *)
Poland . . . . .	4,388	683	2,998,256	5,159	706	3,644,204
US S R . . . . .	29,652	446	13,227,600 *)	29,652	446	13,227,600 *)
<b>Continent . . . . .</b>	<b>95,327</b>	<b>930</b>	<b>86,633,630</b>	<b>98,561</b>	<b>955</b>	<b>94,157,255</b>
Kent . . . . .	11,742	1,580	18,555,347	11,436	1,276	14,588,389
Hants . . . . .	605	1,651	998,904	561	1,427	800,821
Surrey . . . . .	121	1,592	192,572	121	1,094	132,386
Sussex . . . . .	1,925	1,497	2,882,515	1,878	1,264	2,373,583
Hereford . . . . .	4,596	1,572	7,226,128	4,287	1,093	4,684,003
Worcester . . . . .	2,083	1,613	3,359,039	2,011	1,138	2,287,934
Other Counties . . . . .	57	1,686	96,121	54	1,509	81,460
<b>England . . . . .</b>	<b>21,129</b>	<b>1,577</b>	<b>33,310,626</b>	<b>20,348</b>	<b>1,226</b>	<b>24,948,576</b>
<b>Europe . . . . .</b>	<b>116,456</b>	<b>1,047</b>	<b>121,944,256</b>	<b>118,909</b>	<b>1,002</b>	<b>119,105,831</b>
Washington . . . . .	19,000	1,490	28,310,040	18,599	1,640	30,503,507
Oregon . . . . .	4,999	1,080	5,399,947	5,300	1,315	6,967,859
California . . . . .	5,901	1,530	9,026,955	5,799	1,610	9,337,804
Idaho . . . . .	3,499	1,620	5,670,011	3,501	1,939	6,789,948
<b>U.S.A. . . . .</b>	<b>33,399</b>	<b>1,449</b>	<b>48,406,953</b>	<b>33,199</b>	<b>1,614</b>	<b>53,599,118</b>
<b>Canada . . . . .</b>	<b>1,174</b>	<b>1,380</b>	<b>1,620,050</b>	<b>1,174</b>	<b>1,380</b>	<b>1,620,361 *)</b>
Tasmania . . . . .	1,488	1,882	2,799,952	1,446	2,341	3,384,502
Victoria . . . . .	425	1,529	650,026	425	1,698	721,455
<b>Australia . . . . .</b>	<b>1,913</b>	<b>1,803</b>	<b>3,449,978</b>	<b>1,871</b>	<b>2,195</b>	<b>4,105,957</b>
New Zealand . . . . .	680	1,301	884,816	667	1,635	1,090,285
Japan . . . . .	1,863	1,171	2,181,011	2,155	1,284	2,767,214
Manchuria . . . . .	247	402	99,207 *)	247	402	99,207 *)
Argentina . . . . .	549	482	264,552	754	456	343,918
South Africa . . . . .	250	618	154,432	259	975	252,427
<b>Total . . . . .</b>	<b>156,531</b>	<b>1,144</b>	<b>179,005,255</b>	<b>159,235</b>	<b>1,149</b>	<b>182,984,338</b>

\*) Estimate

\*\*\*) Official Weight May 5th, 1960.

**Hallertau.** A warm autumn 1958 and a mild and short winter 1958/59 resulted in a good wintering of the plants. Field work started locally already by the end of February 1959. **Uncovering** and **Cutting** began generally during the last week of March and was finished until mid-April under dry weather conditions. The young shoots were off to a quick start under favourable spring weather in April. This development, however, was retarded by cooler weather with occasional **Night Frosts** in April. Temperatures rose somewhat during the second half of April but the weather became cooler and rainy again by which a too rapid growth of the hops was avoided. Warmer weather until mid-May resulted in a normal development. **Downy Mildew** was scarcely apparent but **Aphids** had to be controlled and locally there appeared **Maybugs**. Under warm and dry weather until the end of May, the hops reached half the height of the trellises. Preventive sprayings against downy mildew and pests were effected.

June, too, was warm and too dry. Gardens on sandy soils already evidenced somewhat the lack of humidity. The plants generally had reached  $\frac{3}{4}$  of the height of the trellises and showed a good development of laterals. Preventive sprayings against pests continued. Welcome rains during the second half of June benefited the hops. The gardens had a healthy and uniform aspect as the late cut yards had improved in the meantime. In spite of the warm and dry weather, **Verticillium Wilt** was to be noted locally.

First **Burrs** appeared already at the end of June and **Bloom** was general at the beginning of July under warm and humid conditions. Fine summer weather in July benefited the development. The gardens continued healthy and the hops generally overhung the trellises. During the second half of July, a hot and dry spell was relieved only by local rainfalls. Severe **Thunderstorms** on July 25th and 26th resulted in the overthrow of some gardens. Hop yards were in full bloom and locally the beginning of the formation of the cones was to be noted already by the end of July. The favourable weather continued until the harvest and improved the **Formation of the Cones**.

**Picking** started on August 24th/25th and was finished by mid-September.

**Quality.** Hallertau hops of crop 1959 were of fine green colour with occasional **Wind Whipping**. The cones were of somewhat smaller size than the year before but uniformly well formed and closed. Picking was clean. The hops showed differences in the content of lupulin which was of light colour and good aroma. Overripe lots of hops appeared more often than in other years.

**Spalt.** **Uncovering** and **Cutting** started at the beginning of April and was finished under good weather conditions by the end of that month. The plants had grown vigorously already before the cutting, especially in sunny locations. Cool weather and **Night Frosts** by the end of April retarded the too rapid growth of the hops which could develop normally under warmer weather in May. Already about this time, rainfalls were eagerly waited for in Spalt. **Pests** and **Diseases** were not to be noted with the exception of inconsequential local infestations of **Fleas**. A heavy **Thunderstorm** with some **Hails** was experienced on May 19th. Cloudbursts resulted in waterlogged gardens. Cooler weather at the end of May hampered growth somewhat.

Warmer weather at the beginning of June made for a good growth of the hops and welcome **Rains** during the second half of June relieved the dryness. The plants developed well and had generally reached the height of the trellises. Strong laterals were plentiful. Good rains at the end of June brought necessary humidity and the plants grew vigorously under warm weather in July. The gardens showed in part overhang but the formation of laterals was not uniform.

The hop yards were generally in full **Bloom** during the last decade of July and had a good and healthy aspect even if the weather was too dry for Spalt. Weather conditions until the harvest improved the **Formation of the Cones** and the **Ripening** of the hops. **Picking** started sporadically on August 20th and was in full swing on August 24th after a thunderstorm with **Hails** had caused local damages on August 23rd. The harvest was finished in mid-September.

**Quality.** Spalt hops crop 1959 showed especially the fact that cones of that year were very brittle. The average sized cones were of the usual green somewhat yellowish colour. The very light lupulin with fine aroma was not quite so plentiful as the year before.

**Tettang.** The month of February 1959 was dry and March was sunny and warm. **Spring Work** started early and was finished at the beginning of April. In this district, too, the initially too rapid development of the young shoots was retarded by colder weather with occasional **Night Frosts** during the second half of April. Growth continued normal in May under warmer weather. During the second half of that month, the plants had already in part reached half the height of the trellises. Preventive sprayings against **Downy Mildew** and **Pests** were effected.

Some gardens had already reached the height of the trellises in mid-June. The hop yards showed a healthy aspect but the growth of the hops was not so luxuriant as the year before. In gardens on sandy soils already **Premature Bloom** appeared as a result of the lack of humidity.

Welcome rains at the end of June/beginning of July benefited the development. The very favourable weather in July with sufficient humidity was especially good for the hops. The gardens showed generally a good overhang which, however, was not quite so luxuriant as originally expected. The vines had well developed laterals. Sporadically, the **Formation of the Cones** was to be noted already at the end of July. Warm and dry weather in August was relieved by welcome precipitations. **Thunderstorms** on August 8th and 10th occasioned local damages. **Picking** started on August 20th and was finished within three weeks.

**Quality.** Tettang hops crop 1959, too, showed the brittleness of the year. The cones were not quite uniform in size, of green colour, but showed somewhat more **Wind Whipping** than normal. Light lupulin of fine aroma was not so plentiful as in 1958.

**Württemberg.** **Spring Work** was finished until April 20th under fine weather conditions. Early cut gardens showed a very strong growth under favourable weather, but were hampered by cooler temperatures and **Night Frosts** during the last decade of April. There were some **Frost Damages** in hop gardens in unprotected locations. Warmer weather started at the beginning of May and continued until the second half of that month which, together with sufficient rainfalls, allowed a good development of the plants. It was colder during the last decade of May but warmer weather in June benefited growth. The hop yards generally had reached half the height of the trellises during the first half of June. Preventive sprayings against **Aphids** had to be effected.

The weather was changeable at the beginning of July with sufficient precipitations. The plants generally reached the height of and had locally begun to overhang the trellises. Favoured by sufficient humidity, the hops could make good growth in July under fine summer weather. Early gardens were in **Full Bloom** whereas late gardens showed **Burrs** which, however, were not quite uniform.

Rainfalls at the end of July improved soil moisture. At the beginning of August the early varieties showed the **Formation of the Cones** whereas late varieties were in full bloom. **Picking** started at the end of August and was finished about September 22nd, 1959.

**Quality.** The cones of Württemberg hops crop 1959 were of average size, well formed and of fine green colour. Healthy lupulin of good aroma was amply present.

**Hersbrucker Gebirge.** The **Uncovering** and **Cutting** started at the end of March and was finished speedily under warm and dry weather. The plants had already started to develop young shoots at the beginning of April.

A **Cold Wave** during the second half of April resulted locally in **Frost Damages** in early cut gardens. The premature development of the plants was retarded in this district, too, by cooler weather which prevailed until the beginning of May. Warmer weather resulted in a normal growth, but lack of rainfalls during the preceding months was to be noted everywhere. The hops showed a good growth in May. There was little evidence of **Downy Mildew** whereas **Aphids** had to be carefully controlled locally. The general dryness and warm weather made for an increased appearance of **Red Spider**.

The weather was very warm and dry at the beginning of June but there were scarcely any precipitations and the development suffered from constant dry winds. The plants grew slowly but showed a good set of laterals. During the course of the month, only occasional rainfalls refreshed the gardens. The height of the trellises was reached generally during the second half of June. First **Bloom** was already to be noted as a consequence of the dry weather. The general aspect of the gardens was not uniform.

Very necessary rainfalls came only at the end of June. The hops showed an overhang as well as plentiful laterals. Early varieties were in **Burrs**. Local precipitations during the month of July were very welcome. The general aspect of the gardens was healthy. Early varieties showed the **Formation of the Cones** at the beginning of August whereas late varieties were in **Full Bloom**. The weather until the harvest favoured the **Ripening** of the hops. Picking was finished not sooner than about September 25th as many farmers desisted from employing pickers and worked the hop yards only with family members to offset low prices. Locally the crop was partially abandoned. The leftover vines were later cut off and burned.

**Quality.** The hops of the Hersbrucker Gebirge crop 1959 showed the average sized cones of the year 1959. The colour was fine but there was more **Wind Whipping** than among hops of other districts. The cones showed a remarkably high content of fine lupulin of light colour. Picking was cleaner than in former years and drying, too, was generally good. Hersbruck hops crop 1959 had the highest bitter value of all German hops crop 1959.

The official estimate of crop 1959 corresponded to the outlook at the beginning of the harvest. The effective result is about three percent less than the estimate. This may be explained in the first line by the fact that the hops had less humidity than usual by reason of the dry growth 1959 and, therefore, were relatively lighter when weighed. Locally, too, a part of the hops was not harvested.

### Crop Estimate 1959

	Yield estimated lbs.	Yield harvested lbs.
Hallertau . . . . .	29,760,000	28,528,075
Spalt . . . . .	3,860,000	3,666,029
Tett nang . . . . .	3,310,000	3,327,954
Hersbrucker Gebirge	2,425,000	2,442,146
Wurttemberg . . . . .	550,000	595,242
Jura . . . . .	660,000	800,049
Baden . . . . .	90,000	96,341
Rheinpfalz . . . . .	65,000	75,177
<b>Total . . . . .</b>	<b>40,720,000</b>	<b>39,531,013</b>

Origin	Total resin content anhydric	Soft resins	%	Humu- lon	%	Lupulon + Frac- tion of soft resin	%	Hard resins	%	Bitter value Wöllmer
Hallertau	16.8	14.5	86.31	6.2	36.91	8.3	49.40	2.3	13.69	7.1
Hallertau/Au	17.2	15.0	87.21	6.3	36.63	8.7	50.58	2.2	12.79	7.3
Hallertau/Mainburg	17.4	15.1	86.78	6.3	36.21	8.8	50.57	2.3	13.22	7.3
Hallertau/Wolnzach	16.7	14.6	87.43	6.1	36.53	8.5	50.90	2.1	12.57	7.0
Spalt	16.4	13.9	84.76	5.9	35.98	8.0	48.78	2.5	15.24	6.8
Tett nang	16.7	14.2	85.03	5.8	34.73	8.4	50.30	2.5	14.97	6.7
Wurttemberg	17.2	15.0	87.21	6.6	38.37	8.4	48.84	2.2	12.79	7.5
Hersbruck	17.3	15.4	89.02	7.0	40.46	8.4	48.56	1.9	10.98	7.9
Jura	16.8	14.6	86.90	6.1	36.31	8.5	50.59	2.2	13.10	7.0
Alsace	18.6	15.4	82.79	7.9	42.47	7.5	40.32	3.2	17.21	8.7
Belgium/Northern Brewer	23.2	19.9	85.77	12.0	51.72	7.9	34.05	3.3	14.23	12.9
Saaz	15.4	13.3	86.36	5.5	35.71	7.8	50.65	2.1	13.64	6.4
Jugoslavia	16.2	14.7	90.74	7.9	48.77	6.8	41.97	1.5	9.26	8.7
Japan	18.5	15.4	83.24	4.3	23.24	11.1	60.00	3.1	16.76	5.5
U. S. Seedless	16.1	14.0	86.96	6.1	37.89	7.9	49.07	2.1	13.04	7.0

### Bitter Values of Crop 1959

Farmers were rather depressed regarding the outlook of prices. This was not only a consequence of the hop yards which presented an extraordinary good yield. Shortly before harvest it became public that the Cooperative Hallertau demanded a partial restitution of the advance payment for hops crop 1958 which considerably influenced the attitude of the farmers.

### Hop Purchase Crop 1959 in Germany

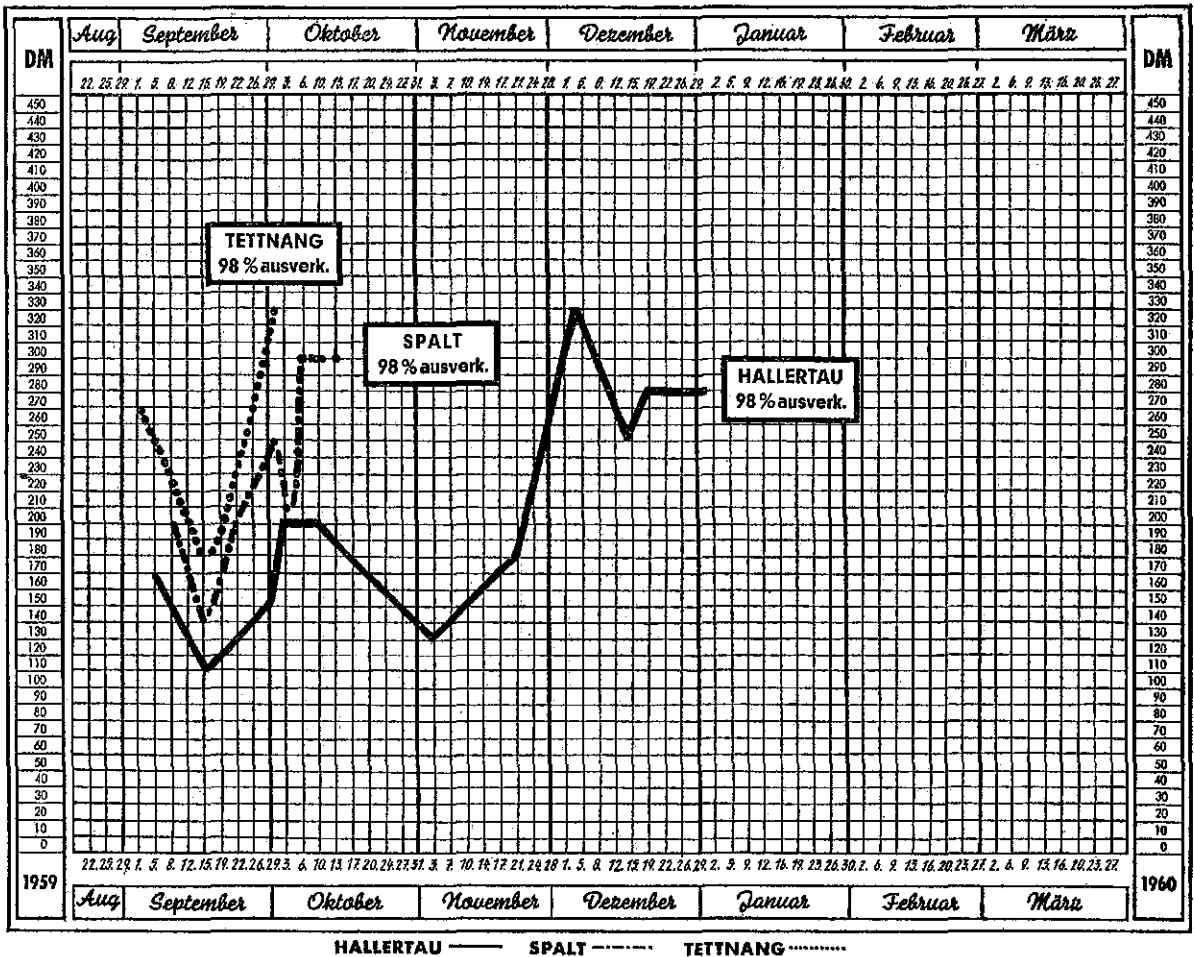
The market in Germany developed in two phases. During the first one, the districts of Spalt and Tett nang were sold out whereas the other districts were sold out during the second phase.

The brewing industry maintained a waiting attitude as a result of declining quotations. Considerable purchases set in only in mid-September when prices on farms had sunk so low that scarcely the cost of harvest was covered. Big purchases started so suddenly that the hop trade had difficulties to obtain cover for orders received.

This demand and rumors regarding a shorter crop induced farmers to a more reluctant attitude which resulted in an increase of prices beginning about the middle of September. The brewing industry, however, was not willing to grant higher prices especially as sufficient supplies of hops from Czechoslovakia and Jugoslavia were available at unchanged quotations. The firm tendency on the German market disappeared until the middle of October.

Trade was renewed and prices rose in mid-November. At this time most districts of production were practically sold out. Hops on farms were available almost exclusively in the Hallertau and demand became more insistent which caused another upswing of prices at the beginning of December 1959. It was to be noted that an increase of quotations developed for final lots in almost all districts of production.

**Development of Quotations Crop 1959**



**Hallertau.** The slow development of the market in this district was only partially a result of a lack of demand by breweries. At the beginning of the harvest, contracted hops were first taken over. For this reason, purchases remained quiet until mid-September. Small lots were handled at the beginning of the harvest at DM 160.—/180.— but quotations decreased until DM 120.—/150.— by mid-September.

On this basis considerable orders were received. Big purchases until the first half of October 1959 resulted in prices up to DM 200.—. Prices, however, decreased in mid-October until DM 130.— as trading became slower. This situation prevailed until the first half of November. At this time it became known that the Hallertau was already sold out to a much greater extent than had been estimated up to then. Increased demand resulted in prices of DM 200.— by the end of November and at the beginning of December quotations rose until DM 300.—. This basis was maintained with occasional oscillations until the Hallertau was finally sold out.

**Spalt.** First purchases were effected by the end of August/beginning of September 1959 on the basis of DM 200.—/230.—. These prices decreased under very slow trading until mid-September to DM 170.—/190.—. Strong demand at that time and considerable purchases led to a price bracket until DM 200.— during the last week in September 1959. At this time, about 80% of the Spalt hops were already sold. Increased prices asked by farmers were only reluctantly conceded at first but the final stocks on farms were sold until the middle of October at prices which rose until DM 300.—.



Most especially in the Spalt-district it was to be noted that hops in farmers' barns showed less weight than normally. This resulted in lack of sufficient cover for sales, which increased demand at the close of the market. The hops were too brittle to be baled and could only be handled late. As prices had risen in the meantime, there were occasional difficulties with farmers regarding the delivery of contracted hops in full weight.

**Tettngang.** The market activity at the end of August at prices of about DM 300.— was unimportant. Trading was quiet until mid-September and quotations decreased slowly until a basis of DM 170.—/200.—. A few days later, prices rose again under brisk trading and reached a bracket of DM 280.—/300.— by the end of that month. The district was practically sold out at the beginning of October. Final lots went into second hands at prices until DM 350.—. The pronounced increase of prices in Tettngang started the first upswing of quotations in the other districts of production.

**Hersbrucker Gebirge.** Trading developed slowly until mid-September at prices of DM 100.—/120.—. The considerable oscillations of prices in other districts were reflected in this area only on a smaller scale. The Hersbrucker Gebirge was sold out until the middle of October 1959 and prices increased finally until DM 170.—. The fact that Hersbruck hops crop 1959 showed an especially high content of lupulin and furthermore the not too high demands by farmers facilitated a quick sale of the crop.

**Wurttemberg.** The market for Wurttemberg hops crop 1959 started only about September 21st. The bulk of the hops was sold out within eight days on a price basis of DM 100.—/110.—.

The Nürnberg market showed only limited activity during the season 1959 as the trade was extensively occupied with covering own orders so that there was only a small supply for sale on the market. This was evident especially when prices were on the upswing.

**Nürnberg  
Market**

During the beginning of the harvest, first sales of Hallertau hops were effected at DM 200.—. As prices on farms, however, decreased constantly, this provenience was scarcely handled on the market until mid-September. Hersbruck hops appeared at decreasing quotations. Beginning in mid-September, lots offered on the market were generally quickly snapped up to cover existing demand. Hallertau hops were quoted at DM 190.—/200.— at the end of September. Considerable demand was shown for Tettngang and Spalt hops at the beginning of October which resulted in increasing prices. Generally, however, the market activity was quiet as prices decreased. Hallertau hops were quoted at DM 175.—/180.— by mid-November 1959.

The partially surprising development of the Hallertau market resulted in an increased demand. Hallertau hops stood at DM 250.—/260.— at the end of November and at DM 310.— by the beginning of December. All other proveniences followed accordingly as far as occasional lots became available.

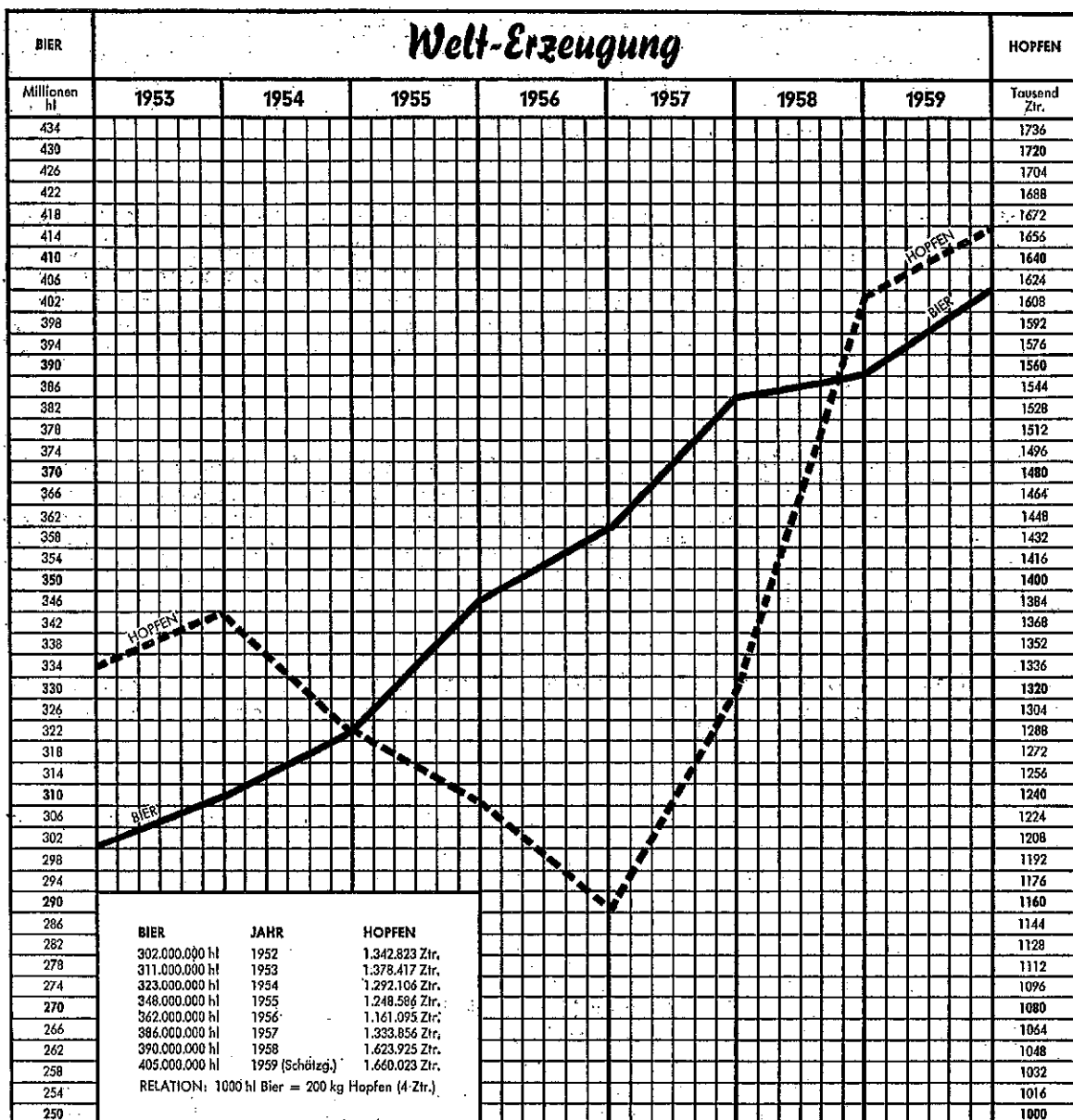
Prices for Hallertau hops were maintained at DM 300.—/320.— since the second half of December 1959 with occasional oscillations, whereas Spalt hops were somewhat lower at DM 300.—. These quotations held until March 1960 although trade was slow. The small visible supplies of Hallertau hops which were estimated at not more than about 2,500 cwts. by the end of February 1960 prevented a decrease of quotations. The market was sold out until the end of May 1960. Final lots of Hallertau hops were sold at DM 330.— (all quotations based on prices for interim packed hops).

The export embargo for hops had already been demonstrated as unnecessary by the market's development during the last two years. Constant efforts to abolish export licences were finally successful in December 1959. Hops were scheduled for elimination from the embargo list by the publication Nr. 69/59. It is much to be regretted that in this publication the statistical number for hops had been printed incorrectly so that export licences remained necessary until March 28th, 1960.

**Export  
Embargo**

On this day, the *Runderlass Aussenwirtschaft Nr. 18/60 (Bundesanzeiger Nr. 54 of March 18th, 1960)* became effective. This publication contained a new embargo list on which hops were no longer mentioned.

**World Production of Beer and Hops**



**Market Survey**

The hops of the old crop 1958 were sold out at decreasing prices. The generally weak tendency on the world hop market influenced the outlook for the new crop 1959.

Hop acreages had been expanded in practically all countries of production and as the year 1959 progressed, reports about an expected big crop were received from all parts. The brewing industry generally had no especially urgent immediate demand as supplies already had been somewhat increased by hops from the preceding crop.

This situation resulted in hop prices in Germany which in part scarcely covered the expenses of picking. Favourable offers especially from Czechoslovakia and Jugoslavia resulted in a rapid sellout of these countries when prices in Germany were increased temporarily. The considerable crop 1959 in the USA had already been disposed of by advance contracts. Un-sold lots of hops, however, were offered at prices which were the cheapest of the entire world market and which corresponded to only one third of cost of production.

The world crop 1959 was sold out until March 1960 with the exception of limited final lots in Germany and the USA. Events on the hop market 1959 have shown that the disposal of a crop surpassing demand is possible if prices are attractive as in that case breweries tend to accumulate hops for future use.

**Farmers' Co-operatives in Germany**

The estimated quantity of hops crop 1958 and 1959 handled by farmers' co-operatives is shown by the following compilation:

Cooperative	Quantities handled	
	Crop 1958	Crop 1959
Hallertau	36,000 cwts.	2,100 cwts.
Spalt	12,000 "	4,000 "
Tettnang	500 "	500 "
Hersbrucker Gebirge	5,800 "	5,500 "
Wurttemberg	1,800 "	2,000 "
Jura	900 "	900 "
Total	57,000 cwts.	15,000 cwts.

Hops of crop 1958 were not entirely sold and the following quantities had to be held over until the new season 1959/60:

Co-operative Hallertau	abt. 6,000 cwts.
Co-operative Spalt	abt. 1,300 cwts.
Co-operative Wurttemberg	abt. 500 cwts.

The sale of these surplus hops became difficult as a result of the big crop 1959. Part of these hops remained unsold at the beginning of the year 1960. The co-operative Hallertau suffered losses as a consequence of the falling market. The hops crop 1958 had been accepted against a payment of DM 400.— per cwt. to farmers. This amount was not realised and during a meeting on September 1st, 1959, farmers were informed that a partial restitution of amounts received became necessary as follows:

DM 35.— per cwt. for	18,850 cwts.
DM 60.— per cwt. for	9,810 cwts.
DM 85.— per cwt. for	5,380 cwts.
DM 95.— per cwt. for	535 cwts.
DM 100.— per cwt. for	95 cwts.

Of the total amount of DM 1,765,000.— farmers have to pay one half until June 30th, 1960, and the second half until June 30th, 1961.

About 4,100 farmers are afflicted. The small lots of hops delivered to the Co-operative Hallertau in 1959 may herein find an explanation.

The slump in prices for hops crop 1959 has once again stimulated efforts of Farmers' Unions to create a basis for more stable prices. Federal assistance is not to be expected and farmers intend now to stimulate better prices by a decrease of supplies on a co-operative basis. Farmers' Unions are active since January 1960 to induce members to agree to one of the following alternatives:

- a) to deliver part of the crop free of charge to the co-operative,
- b) to plough out part of the hop yards or eventually to take the hop yards out of production for the next two years by replanting,
- c) not to pick part of the crop and to destroy the abandoned hops.

These measures are to apply to 15% of the crop if same is over 350,000 cwts. and to 10% of the crop if over 320,000 cwts. It is intended to put not more than 320,000 cwts. on the market and it is estimated that 200,000 cwts. will suffice for the German brewing industry and 120,000 cwts. for exports. Nothing is known about an allocation of the 320,000 cwts. to the various districts of production.

Hops entrusted free of charge to co-operatives are to be held back. These stocks are either to be sold later on or eventually to be destroyed according to the market's development.

These measures are to become effective if at least 87% of farmers will sign a corresponding contract. For the time being, only the coming crop 1960 is under discussion. In addition, a very marked alteration of hop sales is intended as public auctions for hops are under discussion.

The economical aims of hop producers in the three countries Belgium, France and Germany have a common basis. Representatives of the three countries met in Strasbourg on December 12th, 1959, and resolved mutual measures within the E.E.C. A market agreement has been projected.

In Belgium, efforts to protect the national hop production started as early as September 1959. It was intended to charge hop imports with a special payment. Repeated efforts in this connection, however, could not succeed in consideration of existing economical obligations and became pointless in November 1959 as the Belgian crop 1959 was practically sold out as a consequence of the hop market's general development.

In France, too, the unsatisfactory hop prices resulted in efforts against the import of hops. It was proposed to discontinue hop imports completely until the French crop should be placed entirely with the French brewing industry at a price of ffrs. 34,000.—. Hop imports, however, are completely liberalized in France the same as in Germany and these efforts, therefore, remained without success. An intended subvention of French hop exports with ffrs. 2,500.— per cwt. did not become effective.

It is a principal function of the E.E.C. to facilitate the exchange of merchandise and to abolish all difficulties in this connection. The above mentioned efforts for restrictions, therefore, would have been entirely contrary to the aims of the E.E.C.

**Farmers'  
Marketing  
Project**

**European  
Economic  
Community  
(E. E. C.)**

**Official Crop Statistics**

Developments during crop 1959 on the German hop market have shown that the figures of the official statistics cannot be taken as a true reflection of events on the market. Owing to the dry season 1959, hops in farmers' barns were especially brittle. It was impossible to proceed with the first baling and the hops, therefore, came only late to the official weighings after they could be baled. The effective sale of such lots lay correspondingly earlier than officially noted by the weighings.

**Verticillium Wilt**

Development of verticillium wilt in the Hallertau is carefully observed by the agricultural authorities. Trials have been effected in order to find control measures but no practical result has been obtained up to now.

In 1959, verticillium wilt has spread especially within the district of Mainburg. In the Hallertau, up to abt. 300 acres of infected gardens are now officially registered. For the first time up to 75% of the vines of one hop yard have been infected.

Hop yards which show verticillium wilt generally are speedily ploughed out either completely or partially.

**Machine Picking**

Agricultural mechanization in hop production shows rapid progress. This is especially necessary to counterbalance the high cost of picking by hand. During **Crop 1959** there were 76 hop picking machines operating in Germany. According to informations up to now received, a considerable number of new picking machines will be installed which for **Crop 1960** are estimated to be available as follows:

Hallertau	381
Spalt	31
Hersbruck	6
Tettngang	31
Total	<u>449</u>

Based upon an estimated average output of 200 cwts. per machine about 90,000 cwts. of hops crop 1960 will be picked mechanically.

**German Hop Exports 1959**

Export of German Hops Crop 1959					
September 1st, 1959 — March 31st, 1960					
Country	lbs.	lbs.	Country	lbs.	lbs.
Belgium . . . . .	846,346		b. f. . . . .	68,343	12,059,603
Denmark . . . . .	871,037		Angola . . . . .	27,117	
Finland . . . . .	243,829		Belgian Congo . . . . .	58,422	
France . . . . .	1,671,748		French Equat. Africa . . . . .	13,228	
Greece . . . . .	11,023		French West Africa . . . . .	61,729	
Great Britain . . . . .	304,455		Cameroons . . . . .	54,233	
Ireland . . . . .	5,512		Canary Islands . . . . .	23,148	
Italy . . . . .	809,309		Kenya-Uganda . . . . .	35,274	
Luxembourg . . . . .	137,347		Lybia . . . . .	6,834	
Malta . . . . .	73,854		Madagascar . . . . .	5,512	
Netherlands . . . . .	588,187		Morocco . . . . .	59,965	
Norway . . . . .	188,493		Nigeria . . . . .	7,275	
Austria . . . . .	1,105,827		Port. East Africa . . . . .	35,274	
Portugal . . . . .	149,913		Rhodesia . . . . .	14,330	
Spain . . . . .	36,376		Union of South Africa . . . . .	10,141	
Sweden . . . . .	822,095		South West Africa . . . . .	12,125	
Switzerland . . . . .	708,558		Tunisia . . . . .	8,818	
Hungary . . . . .	26,455		<b>Africa . . . . .</b>		<b>501,768</b>
<b>Europe . . . . .</b>		<b>8,600,364</b>	Birma . . . . .	11,023	
Argentina . . . . .	101,412		Cyprus . . . . .	14,550	
Bolivia . . . . .	5,512		Hongkong . . . . .	11,023	
Brazil . . . . .	445,770		India . . . . .	2,425	
Brit. West Indies . . . . .	12,346		Indonesia . . . . .	22,046	
Canada . . . . .	22,487		Iraq . . . . .	6,614	
Chile . . . . .	3,748		Iran . . . . .	6,614	
Colombia . . . . .	137,788		Japan . . . . .	707,897	
Costa Rica . . . . .	9,259		Corea . . . . .	11,023	
Cuba . . . . .	22,046		Lebanon . . . . .	2,205	
Ecuador . . . . .	11,023		Philippine Isl. . . . .	47,178	
Mexico . . . . .	29,101		Singapore . . . . .	27,558	
Panama . . . . .	11,243		Syria . . . . .	882	
Paraguay . . . . .	441		Thailand . . . . .	22,046	
Peru . . . . .	4,409		<b>Asia . . . . .</b>		<b>893,084</b>
Puerto Rico . . . . .	5,512		New Guinea . . . . .	4,409	
Uruguay . . . . .	23,148		French Pacific Isl. . . . .	9,921	
U.S.A. . . . .	2,433,878		<b>Australia . . . . .</b>		<b>14,330</b>
Venezuela . . . . .	180,116		<b>Total . . . . .</b>		<b>13,468,785</b>
<b>America . . . . .</b>		<b>3,459,239</b>			
Ethiopia . . . . .	24,251				
Algiers . . . . .	44,092				
c. f. . . . .	68,343	12,059,603			

The following lots of hops have been imported from September 1st, 1959, to March 31st, 1960:

Belgium . . . . .	102,955 lbs.	b. f. . . . .	1,632,727 lbs.
France . . . . .	283,071 lbs.	Czechoslovakia . . . . .	1,078,049 lbs.
Great Britain . . . . .	29,762 lbs.	U.S.A. . . . .	1,217,601 lbs.
Jugoslavia . . . . .	<u>1,216,939 lbs.</u>	Total . . . . .	<u>3,928,377 lbs.</u>
c. f. . . . .	1,632,727 lbs.		

**German Hop Imports  
Crop 1959**

Verification of the hop acreage in Germany in 1959 resulted in the following figures:

**Hop Acreage  
1959**

Districts	1939 Acreage acres	1959		
		Existing acreage acres	Additional acreage acres	Total acres
Hallertau	11,317	14,263	383	14,646
Spalt	2,276	2,338	49	2,387
Hersbruck	2,118	1,497	27	1,524
Jura	200	432	12	444
Tettngang*)	—	32	—	32
Aischgrund/oth. distr.	200	17	—	17
<b>Bavaria</b>	<b>16,111</b>	<b>18,579</b>	<b>471</b>	<b>19,050</b>
Wurttemberg/RHW.	1,223	455	10	465
Tettngang**)	1,636	1,903	5	1,908
Baden	440	79	2	81
<b>Baden-Wurttemberg</b>	<b>3,299</b>	<b>2,437</b>	<b>17</b>	<b>2,454</b>
Pfalz	151	82	5	87
<b>Rheinland-Pfalz</b>	<b>151</b>	<b>82</b>	<b>5</b>	<b>87</b>
<b>Germany</b>	<b>19,561</b>	<b>21,098</b>	<b>493</b>	<b>21,591</b>

\*) areas in Bavaria

\*\*) except areas in Bavaria

Farmers' efforts to ensure better prices for hops have already reflected upon the hop acreage. Complete ploughing out of hop yards has generally been avoided up to now, but the acreage in full bearing has been reduced for the next two crops of 1960 and 1961 by replanting hop yards with new slips.

**Hop Acreage  
1960**

The ploughing out of hops in the district of Hersbrucker Gebirge for crop 1960 is estimated at about 10% of the acreage. Reports from Wurttemberg show that a decrease in hop acreage of about 10% is to be expected. In this area, the reason is the increased lack of pickers who transfer mostly to the industry.

Hop demand within the D.D.R. is estimated at 50,000 cwts. per year. First plantings of hops in 1951 have in the meantime developed into a considerable production which brought a crop of 26,500 cwts. in 1959 covering about 50% of necessities for the home brewing industry.

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

For the import of hops from Western Germany, there was still available the best part of the amount of DM 8,000,000.— which had been published already from treaty 1959 under number A 4829 on December 24th, 1958.

In the beginning of the season of 1959, about 6,000 cwts. of hops were purchased in Western Germany and shipped until October 1959. Further purchases amounting to abt. 4,500 cwts. were handled in January 1960 so that a total of abt. 10,500 cwts. of hops crop 1959 has been delivered from Western Germany.

The winter of 1958/59 brought only scant soil moisture. Spring started very early. Generally, weather conditions in 1959 were warm and dry. Rainfalls were distributed as follows:

*Deutsche Demokratische Republik (D.D.R.)*

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
39.8	11.9	14.2	33.3	39.4	62.0	39.3	59.4	1.1 mm

**Spring Work** was effected rather early under favourable weather conditions. The hops could develop under fine weather until the **Burr** stage. The height of the trellises was reached on July 3rd. **Bloom** was to be noted from mid-July until the beginning of August. Constant dryness hampered the formation of the cones so that marked differences resulted in the development. Sometimes the vines showed cones already on the lower parts whereas the top parts were still in burrs. **Aphids** were present in hop yards on lighter soils whereas hop gardens on heavy soils suffered from **Red Spider**. The plants showed a luxuriant overhang, possibly as a result of very early finished spring work.

**Picking** was general on August 24th and finished within sixteen days under warm and dry weather. Ten picking machines are in operation.

The **Quality** was mostly good with somewhat coarser cones in the district of Dresden. The crop was estimated as follows: 8% grade I, 71% grade II, 18% grade III, 3% grade IV. Prices paid to farmers are as follows: (DMark East)

Grade I DM 1,000.— per cwt.	Grade IV DM 700.— per cwt.
Grade II DM 900.— per cwt.	Grade V DM 600.— per cwt.
Grade III DM 800.— per cwt.	

The entire crop is handled centrally. Hop production in the D.D.R. is centered especially near Halle and Erfurt. Some acreages are located near Magdeburg, Leipzig and Dresden and smaller areas are found near Gera, Chemnitz (Karl-Marx-Stadt) and Suhl.

It is intended to expand the total hop acreage up to 8,000 acres. The increases are planned especially for the districts of Leipzig, Dresden, Erfurt, Halle and Magdeburg.

## Poland

Insufficient rainfalls during the first quarter of 1959 did not replenish soil moisture. Precipitations were distributed as follows:

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.
Lublin-Kielce	26.1	10.0	12.2	50.6	22.8	144.4	77.3	86.2	5.4	14.6 mm

The early and warm, dry spring allowed a timely start of **Spring Work** which was finished on April 20th. The hops grew uniformly, were however somewhat hampered in development by dry weather and low temperatures with occasional **Night Frosts**.

A better growth resulted only after more rainfalls and higher temperatures in June. During the first half of that month, the plant had reached two thirds of the height of the trellises. **Bloom** started about July 20th and was relatively early. The changeable weather conditions resulted in a variable development of blooming. Cones did not develop so uniformly as in former years. Pests and diseases were controlled. **Hails** occasioned local damages over an area of about 370 acres.

**Picking** started on August 20th and was finished under sunny and dry weather in mid-September. Two picking machines are in operation. The cones were not quite uniform in colour as a consequence of weather conditions. The **Quality** of the crop was judged as follows: 14.7% choice, 83.3% medium, 2% off-grade. The acreage in 1959 included abt. 570 acres of new gardens corresponding to more than 10% of the total.

The entire crop is handled at official prices. Districts of production were sold out until December 30th, 1959.

## Czechoslovakia

**Uncovering and Cutting** of the hops was finished early under fine weather conditions. The hops had wintered well. **Downy Mildew** had to be controlled rather early as a consequence of the dry weather. Rainfalls were distributed as follows:

	April	May	June	July	August	September
Saaz	43.2	72.1	26.54	36.52	37.9	0.01 mm
Auscha	50.2	28.1	21.7	92.3	31.8	0.01 mm

The hops attained the height of the trellises by the end of June. **Bloom** started during the first half of July. In spite of the uncommon dryness during 1959, hop yards in valley locations showed a good overhang. The deeply rooted hop plants produced well developed cones which were well ripened until harvest.

**Picking** started sporadically between August 17th and 20th and was finished under fine sunny weather within 15 days. 150 Picking machines are in operation. For the rest, there were sufficient pickers available.

The hops of crop 1959 showed healthy cones of normal size and uniform green colour. The **Quality** was judged as follows: 75% choice, 25% medium. Only 80 cwts. of the total crop were off-grade.

All hops are centrally handled. All lots available for exports found eager purchasers, especially as prices for Saaz hops were maintained on an unchanged basis. At the close of the season, some lots of hops have been imported to supply the home brewing industry.

## Jugoslavia

In the **Sanntal (Slovenia)** the hop plant could develop well after a mild winter 1958/59 which brought scarcely any snowfall. Weather conditions during the growing season 1959 were especially favourable. Rainy as well as warm and sunny spells interchanged. Precipitations were distributed as follows:

Jan.	Febr.	March	April	May	June	July	August	September
26.9	6.2	53.6	82.5	206.1	194.0	74.5	192.6	22.5 mm

The plants attained the height of the trellises at the end of June. **Bloom** started about 15th/20th July. The vines showed a luxuriant overhang and strong laterals. Pests and diseases were controlled by an average of six sprayings.

**Picking** started on August 16th and was finished by the beginning of September. The harvest was hampered temporarily by rainy weather. There were not always sufficient pickers available to harvest the very big crop. Pickers' wages had to be increased locally during the harvest. First experiences with a picking machine have been gathered on a state farm near Celje.

The hops of crop 1959 were not quite up to the crop 1958 regarding colour and formation of the cones. **Quality** was judged as follows: 83.2% choice, 12.8% medium, 4% off-grade. Prices to farmers were as follows:

Grade I Dinar 21,000.— per cwt.  
 Grade II Dinar 20,000.— per cwt.  
 Grade III Dinar 14,000.— per cwt.  
 Grade IV Dinar 8,000.— per cwt.

No considerable increases of acreage seem to be planned for year 1960. Of the expanded acreage in Slovenia, about 740 acres are located in new districts. About 1,980 acres of the hop acreage are found on state farms.

The following figures are available regarding the **Export of Hops** from Yugoslavia during the calendar year 1959:

Country	lbs.	Country	lbs.
U.S.A.	2,828,502	b. f.	5,884,077
Germany West	798,065	Bulgaria	216,051
Spain	546,741	Germany East	216,051
Argentina	507,058	Hungary	123,458
England	471,784	Algiers	88,184
Netherlands	416,669	Morocco	46,297
Switzerland	271,166	Tunisia	19,841
Brazil	44,092	Others	701,063
c. f.	5,884,077	Total	7,295,022

**Backa.** Conditions were favourable for hops until about mid-June although it was somewhat cooler than normal in May. From July until mid-August there were almost constant rains. The weather turned dry only during the second half of August and remained so until harvest. Sprayings against pests and diseases were effected from seven to twelve times.

The hops attained the height of the trellises at the beginning of June and were in **Bloom** during the second half of July. The vines showed a luxuriant overhang. Cones on the lower third of the vines were well formed. The acreage of 3,580 acres comprises about 50% new gardens in their first year.

**Picking** started on August 28th and was finished on September 12th under dry weather. There was no scarcity of labour. Picking machines are not in operation.

As a consequence of the depressed world market, only about two thirds of the crop i. e. about 17,000 cwts. were picked. The rest of the hops was abandoned. The hops of crop 1959 were judged better than the year before. The normal and uniformly developed cones had somewhat more lupulin than average and were of fine green colour. **Quality** was estimated as follows: 60% choice, 30% medium, 10% off-grade. All hops are handled at fixed prices and were sold out until the end of November 1959.

Hop yards developed well during 1959 under normal weather conditions. Sprayings against pests and diseases were effected five times on the average. The plants attained the height of the trellises at the end of May. **Bloom** started at the beginning of June and the plants developed well until the harvest. The formation of the cones and the ripening of the hops was favoured by weather conditions. Some **Downy Mildew** appeared at the end of August as a consequence of heavy rainfalls in July. Precipitations were distributed as follows:

Jan.	Febr.	March	April	May	June	July	August	Sept.
47	3	18	35	82	80	124	4	24 mm

**Picking** started on August 15th and was finished on September 20th under dry weather. There were sufficient pickers available. The hops crop 1959 were not so good in colour and quality as the year before. The **Quality** was judged as follows: 8.8% grade I, 17.9% grade II, 28% grade III, 29.9% grade IV, 15.4% grade V. A harvest of 2,476 cwts. was gathered on a total area of 675 acres of which 72 acres new gardens. All hops were taken over by the Hungarian brewing industry at a price of Ft. 6,556.— per cwt.

**Hungary**

In the district of **Alost** rainfalls were distributed as follows:

Jan.	Febr.	March	April	May	June	July	August	Sept.
84.0	6.3	61.2	50.0	38.8	28.1	47.0	63.6	2.6 mm

The plants came well out of dormancy after the mild winter of 1958/59. Ample rainfalls during the spring favoured the development. The weather was fine since May 1959 and warm with occasional rainfalls so that hop yards did not suffer from dryness. On the average, eight sprayings against pests and diseases were effected. The plants reached the height of the trellises at the beginning of July. **Bloom** started about July 20th. The vines had well developed and showed a luxuriant overhang.

**Picking** was in full swing at the end of August and finished between September 15th and 20th under good weather conditions. There was no scarcity of labour. 12 picking machines are in operation.

The hops were of good colour and quality and showed normal formed cones. The **Quality** was graded as follows: 70% choice, 20% medium, 10% off-grade.

Prices started at bfrs. 2,500.— but decreased quickly until bfrs. 1,800.—/2,000.— by mid-September. Quotations were maintained on this basis until the second half of October to decrease further to bfrs 1,000.— at that time. At the beginning of December, prices rose within two or three days to bfrs.2,000.—/2,500.—. The district of Alost was sold out on this basis around December 20th, 1959.

**Poperinghe.** The winter of 1958/59 was especially mild. First shoots appeared already about the end of February and **Spring Work** was finished early under dry weather. Lower temperatures in April until the middle of May hampered development. Later on, hop yards showed good progress under warm and sunny weather and were refreshed by welcome rainfalls. Thunderstorms at the beginning of August increased soil moisture.

Pests and diseases were controlled. First bloom appeared in mid-June. The hops reached the height of the trellises during the first half of July and were in full **Bloom** in mid-July. Generally the vines remained pointed and laterals were not so numerous as the year before. **Picking** started sporadically during the last decade of August, was in full swing at the end of August and finished on September 12th under favourable weather conditions. There were sufficient pickers available. About 40 picking machines are in operation which handled an estimated 20% of the crop.

The hops were well ripened and showed a yellowish-green colour. The cones were of smaller size than normal but better closed. The **Quality** was judged as follows: 75% choice, 20% medium, 5% off-grade.

Trading started at the beginning of September on a basis of bfrs. 2,000.—. This quotation, however, could not be maintained as a consequence of conditions on the hop world market. Prices were bfrs. 1,800.— on September 15th, 1959, bfrs. 1,700.— at the beginning of October, bfrs. 1,500.— in mid-October and reached their lowest point with bfrs. 1,200.— at the beginning of November. Special varieties were quoted correspondingly higher.

It is understandable that hop producers in Belgium demanded assistance from the Government especially with the aim to limit imports. These efforts, however, could not be successful in consequence of existing economical obligations. In November 1959 prices rose as the world crop 1959 was sold out with surprising quickness. Prices were bfrs. 2,200.— on December 15th, 1959, and bfrs. 2,500.— on January 15th, 1960. The crop was sold out with the exception of small lots until March 1960.

Export of Belgian hops from September 1st, 1959, until January 31st, 1960, are shown as follows:

	lbs.		lbs.
Belgian Congo	7,055	b. f.	327,604
French West Africa	7,275	Canada	1,102
Germany (West)	108,246	Norway	3,086
Austria	47,178	Netherlands	35,494
Brazil	6,614	Portugal	1,323
Denmark	33,510	England	47,840
U.S.A.	5,732	Sudan	2,205
Finland	6,173	Sweden	26,676
France	13,889	Switzerland	11,023
India	9,921	West Pakistan	1,323
Ireland	81,791	Total	457,676
Italy	220		
c. f.	327,604		



Belgium imported the following quantities of hops crop 1959 from September 1st, 1959, until January 31st, 1960:

	lbs.		lbs.
Western Germany . . . . .	673,505	b. f. . . . .	901,240
U.S.A. . . . .	161,597	England . . . . .	101,191
France . . . . .	63,272	Czechoslovakia . . . . .	621,697
Netherlands . . . . .	2,866	Jugoslavia . . . . .	202,382
c. f. . . . .	901,240	Total . . . . .	1,826,510

Precipitations in France were distributed as follows:

France

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Alsace	87.9	2.2	82.1	50.7	81.3	72.2	47.1	49.4	5.4 mm
North	—	—	25.0	34.9	35.7	14.8	21.8	20.7	10.0 mm

In the **Alsace** prevailing favourable weather conditions allowed an early start of **Spring Work** which was finished in mid-April. The hops had wintered well. Remaining damages from last years' storms in the hop yards were repaired.

The young shoots could develop well under warm weather. **Downy Mildew** had to be controlled early. The weather was humid and cool at the beginning of May, became soon warmer and the hops could grow well. Occasional **Hails** during May did scarcely any damage.

Weather conditions during the summer were generally very warm and dry with the exception of a rainy spell in July. The hops attained the height of the trellises at the beginning of July and were in **Bloom** on July 10th. The general aspect of the vines was pointed.

**Picking** started at the beginning of September and was finished within three weeks under dry and hot weather. Between 50 and 60 picking machines are in operation. The hops were somewhat brittle as a consequence of dry weather during growth. The **Quality** was judged as follows: 93% choice, 4% medium, 3% off-grade.

The hops were sold under slow trading on a basis of ffrs. 10,000.—/15,000.—.

**Flandres.** Weather conditions in 1959 were distinguished by warmth and dryness. Pests and diseases had to be controlled by up to fifteen sprayings. The hops reached the height of the trellises at the beginning of July. **Bloom** was retarded. Generally, hop yards showed a good growth. The vines did not overhang the trellises very much but they had not remained exactly pointed. **Picking** started at the beginning of September and was finished on September 25th. There was some lack of labour but one third of the crop is already harvested mechanically. 13 picking machines are in operation. The weather during the harvest was fine and dry. The cones were well formed, of uniform green colour but brittle as a consequence of dryness. The **Quality** was graded as follows: 50% choice, 30% medium, 20% off-grade.

Prices started with ffrs. 20,000.— at the beginning of September but had to be decreased constantly according to the market's development. Quotations were ffrs. 17,000.— on September 15th, ffrs. 14,000.— on October 1st, and ffrs. 11,000.— on December 1st, 1959. They rose to ffrs. 15,000.— at the beginning of December and reached ffrs. 18,000.— in mid-December. The district was sold out with the exception of 1,000 cwts. at the beginning of March 1960.

In France, too, early efforts were made to increase prices for domestic hops. It was intended to ensure the sale of the French crop at a higher price by eliminating hop imports. Foreign trade in hops, however, is liberalized in France and the disposal of the French hops crop 1959, therefore, could only be effected on the basis of the free market's conditions. A subvention of hop exports with ffrs. 2,500.— per cwt. was intended but did not become effective.

French hop imports for the calendar year 1959 were as follows:

Countries	Jan.—June lbs.	July—Dec. lbs.	1959 Total lbs.
Belgium-Luxembourg . . . . .	19,400	13,889	33,289
Western Germany . . . . .	1,659,843	1,607,153	3,266,996
England . . . . .	15,873	—	15,873
Jugoslavia . . . . .	70,106	—	70,106
Czechoslovakia . . . . .	386,466	361,113	747,579
Total . . . . .	2,151,688	1,982,155	4,133,843

Exports of French hops in 1959 were as follows:

Destination	Jan.—June lbs.	July—Dec. lbs.	1959 Total lbs.
Algiers . . . . .	73,634	68,122	141,756
Belgium-Luxembourg . . . . .	7,055	31,746	38,801
Denmark . . . . .	—	44,092	44,092
Western Germany . . . . .	—	99,868	99,868
French Equat. Africa . . . . .	5,732	—	5,732
French East Africa . . . . .	2,205	2,425	4,630
Italy . . . . .	441	—	441
Cameroons . . . . .	44,312	—	44,312
New Caledonia . . . . .	2,646	—	2,646
Netherlands . . . . .	—	5,512	5,512
Spain . . . . .	44,092	—	44,092
Spanish Possessions in Africa . . . . .	2,205	—	2,205
Tunisia . . . . .	8,818	—	8,818
Hungary . . . . .	55,115	—	55,115
Vietnam . . . . .	272,709	—	272,709
<b>Total</b> . . . . .	<b>518,964</b>	<b>251,765</b>	<b>770,729</b>

**Austria**

In the district of **Muehlviertel** cool and windy weather prevailed during the spring of 1959 which brought strong **Frosts** until — 6° C about April 20th. Growth was hampered, but developed vigorously under favourable weather in May. These conditions continued until the harvest and were only interrupted by a cooler spell in June.

At the end of June, the hops had reached the height of the trellises and stood in **Bloom** in mid-July. The hops showed a luxuriant overhang so that as a consequence of excessive foliage cones on the lower third of the vines did not fully ripen.

**Aphids** as well as **Downy Mildew** did no damage as a result of effective control measures. Sprayings were effected ten to twelve times on the average. **Picking** started on August 25th and was completed on September 14th, under good weather conditions. There was some lack of labour.

Colour and **Quality** of crop 1959 were judged better than the year before. The cones, however, were somewhat bigger in size. The quality was graded as follows: 71% choice, 23% medium, 6% off-grade.

A crop of 1,265 cwts. was harvested on a total acreage of 119 acres (of which 15 acres new gardens). The entire crop was purchased by sponsoring breweries until mid-January 1960.

**Switzerland**

After a normal spring the ensuing growing season 1959 was exceedingly favourable for the development of the hop yards. Sufficient rainfalls were distributed as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
92	1	56	71	67	146	56	76	21	79	47	79 mm

There was only a passing dry spell in the beginning of June. At that time, **Aphids** were noted and controlled as usual. Sprayings were effected six to ten times on the average. The hops reached the height of the trellises at the beginning of July, they showed a good overhang and were in **Bloom** in mid-July. Cones on the lower third of the vines were not fully ripened. A heavy **Storm** on August 10th caused local damages. One hop yard in Montet (Canton Fribourg) was completely destroyed.

One hop yard was observed to show some sporadic wilted vines. **Verticillium Wilt** is suspected but not yet completely proved. This infestation is held under close observation.

**Picking** started on August 22nd and was finished on September 2nd under fine and warm weather. One picking machine is in operation and handles about 70% of the crop.

The **Quality** was estimated as follows: 99% choice, 1% off-grade.

A total crop of 250 cwts was harvested on an area of 22 acres of which 2 acres new gardens. Prices to farmers were fixed at sfrs. 420.— per cwt. on October 1st, 1959. In accordance with the price development on the world market, breweries paid only sfrs. 220.— and the difference of sfrs. 200.— per cwt. was paid by the Compensation Fund which has been established in former years. The total crop was purchased by Swiss breweries.

**Greece**

Production of hops continues on an experimental basis. The acreage in 1959 is indicated with 25 acres and the average yield is 890 lbs. per acre.

Production of hops in Spain remains located within the known four districts. The acreage was increased by 158 acres with about 200,000 hills in 1959. The total area is about 1,680 acres. The following quantities were harvested in 1959:

Galicia . . . . .	1,862 cwts.
León . . . . .	4,842 cwts.
Asturias . . . . .	501 cwts.
Vasco-Navarra . . . . .	68 cwts.
	<u>7,273 cwts.</u>

The **Quality** of the hops was judged especially good in Galicia and Asturias, and better than the year before in the other districts. The grading was as follows: 68.9% choice, 29.4% medium, 1.7% off-grade.

A cold winter 1958/59 was followed by a hot and dry summer which influenced the development of the hops. Eagerly awaited rainfalls came only at the beginning of July. Yields were lower than the year before but it has to be borne in mind that part of the hops were abandoned as far as the basic quota of 84.5% for farmers was exceeded. The English breweries had replenished their supplies during the preceding years so that a relatively low demand was registered for hops crop 1959. The expected demand for exports, too, was very low. The following quantities had been registered:

Home consumption crop 1959	187,000 cwts.
Export crop 1959	<u>2,505 cwts.</u>
Total	<u>189,505 cwts.</u>

In contrast to these figures, registrations for crop 1958 were 241,000 cwts. for home consumption and 24,000 cwts. for export totalling 265,000 cwts.

**Picking** started on August 26th and was finished under favourable weather conditions on September 23rd. There was no lack of labour especially as already two thirds of the crop are harvested mechanically. The hops of crop 1959 were more uniform in size and of better colour than the year before. The **Quality** was judged as follows: 20% choice, 75% medium, 5% off-grade.

All contracts were delivered at 100%. As the average price for English hops is based not only on cost of production but on yield per unit of acreage as well, the average price for crop 1959 was increased to £ 32.17.6 per cwt. as against £ 27.5.6 in 1958. On this scale, producers have a secure basis for the production of hops but on the other hand English hops were the highest priced hops on the world market 1959.

About 3,500 cwts. of English hops remained unsold at the close of the season.

Exports of English Hops Crop 1959			
September 1st, 1959 — March 31st, 1960			
Country	cwts.	Country	cwts.
Antilles . . . . .	1	b. f. . . . .	14,557
Belgium . . . . .	949	Kenya . . . . .	120
Burma . . . . .	27	Malta and Gozo . . . . .	262
Canada . . . . .	721	Mauritius . . . . .	1
Ceylon . . . . .	324	New Zealand . . . . .	2
Germany West . . . . .	30	Netherlands . . . . .	150
Fiji Islands . . . . .	13	Nigeria . . . . .	8
Finland . . . . .	4	North Borneo . . . . .	3
Hongkong . . . . .	11	Pakistan . . . . .	28
India . . . . .	3	Singapore . . . . .	197
Iraq . . . . .	140	Sweden . . . . .	32
Ireland . . . . .	12,326	Total . . . . .	<u>15,360</u>
Jamaica . . . . .	8		
c. f. . . . .	<u>14,557</u>	1 cwt. = 50.8 kilos	

The following quantities of hops crop 1959 were imported from September 1st, 1959, to March 31st, 1960:

Germany West . . . . .	1,727 cwts.	b. f. . . . .	2,277 cwts.
Belgium . . . . .	532 "	Czechoslovakia . . . . .	207 "
U.S.A. . . . .	<u>18 "</u>	Jugoslavia . . . . .	<u>4,077 "</u>
c. f. . . . .	<u>2,277 cwts.</u>	Total . . . . .	<u>6,561 cwts.</u>
		1 cwt. = 50,8 kg	

**California.** In the district of **Sacramento**, hop yards made fine progress under mild and agreeable weather. The local rainfalls came in January and February 1959 and were distributed as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
4.62	3.64	0.46	0.30	—	—	—	—	— inch.

**Spring Work** was finished in April under favourable conditions. Warm and dry weather continued and benefited growth, checking at the same time the danger of **Downy Mildew** which had to be carefully controlled during the last three years. From two to four sprayings were effected against **Red Spider**. The hops reached the height of the trellises in mid-June. **Bloom** started during the first decade of July. Hop yards showed a good overhang and a fine set of cones especially at the top of the vines. **Picking** was in full swing on August 12th and finished in mid-September under good weather conditions. The **Quality** of the crop was better than the year before and was judged as follows: 70% choice, 25% medium, 5% off-grade.

**Western Oregon.** In this district, the weather was especially good during the entire season 1959. Precipitations were distributed as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
11.15	4.98	4.45	1.12	2.09	1.41	0.50	0.02	2.10 inch.

Pests and diseases were scarcely to be noted. Up to three sprayings were effected locally. The hops reached the height of the trellises at the beginning of June and were in full **Bloom** at the beginning of July. The vines had a good overhang and a uniform set of cones. **Picking** of Fuggles hops was effected from August 10th to August 25th whereas Cluster hops were harvested between September 5th and September 20th. The weather was favourable throughout the harvest with the exception of rainfalls on September 4th and 5th. The **Quality** of the hops was better than in 1958 and judged as follows: 50% choice, 35% medium, 15% off-grade.

**Eastern Oregon and Idaho.** Favourable weather has been reported for the entire growing season. Temperatures were under average in May and over average in June. Rainfalls were as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
1.46	0.66	1.08	0.29	1.08	0.19	0.04	0.20	4.00 inch.

There were practically no pests or diseases. Locally, two or three sprayings were effected against **Downy Mildew** and up to four sprayings against **Red Spider** and **Aphids**.

The plants reached the height of the trellises about June 20th. First **Bloom** was noted about June 25th on early Cluster hops whereas late varieties bloomed about the middle of July. The vines were well developed and showed a good overhang. Cones on the lower third of the vines ripened. **Picking** started on August 20th and was finished on September 29th. The harvest suffered from rainfalls which were 3.68 inch. higher than average for September.

The hops were better in lupulin and formation of the cones than the year before, but were not as good in colour as a consequence of the rainy weather during harvest and in part because of overripening. The **Quality** was judged as follows: 50% choice, 30% medium, 20% off-grade.

**Washington.** The year 1959 started in the district of **Yakima** with exceptional rainfalls as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
2.03	1.12	0.80	0.05	0.14	0.20	—	0.04	0.52 inch.

Temperatures were generally mild and the working of the hop yards was not hampered by weather conditions. Temperatures in the spring were somewhat lower than usual and continued lower than normal throughout the early season of growth. The development of the hops, therefore, was uniform with somewhat less foliage than usual so that a bigger harvest than expected could be brought in. There was scarcely any evidence of pests which were held easily under control.

The vines reached the height of the trellises at the beginning of July. Early varieties bloomed during the first decade of July whereas late varieties were in full **Bloom** in mid-July. The vines had a uniform set of cones.

**Picking** started on August 25th and was finished on September 20th. The weather was dry but constant winds hampered the harvest and resulted in **Wind Whipping**. The hops of crop 1959 were better in lupulin than the year before. The cones were smaller in size than in 1958 but the vines had a bigger set so that a bigger crop than the year before resulted. The **Quality** was graded as follows: 30% choice, 30% medium, 40% off-grade.

The American market was very quiet after the final stages of crop 1958 until the new crop 1959. Prices for crop 1958 had receded until 30 c per lb. Advance contracts for crop 1959 were quoted at 36/38 c per lb. in July 1959, but crop 1959 was already under contract to a considerable extent.

**Hop Market  
U.S.A.**

The market for available lots crop 1959, therefore, started only reluctantly. First quotations in mid-September 1959 stood at 30/35 c per lb. Demand, however, was very slow and prices on farms decreased to 15/20 c per lb. until mid-October 1959. These quotations continued in force nominally without important deals as a consequence of lack of demand. Occasionally, lots of crop 1959 came on the market at favourable conditions and found prompt buyers. After liquidation of all contracts, only small quantities of crop 1959 are estimated as having remained unsold.

The disappointing development of prices led to the abandoning of about 3,600 cwts. in Idaho and about 8,900 cwts. of hops crop 1959 in Washington.

Available informations indicate that farmers in the U.S.A. have ploughed out part of their hop yards as a result of unsatisfactory prices for crop 1959. The decrease of the acreage in 1960 is estimated at about 12% as against 1959.

**Hop Acreage  
U.S.A.**

On March 6th, 1960, the Food Additives Amendment of the Food, Drug and Cosmetic Act became effective, which determines tolerances for the concentration of pesticide residues permitted in processed hops. Spraying may not be applied in hop yards shortly before harvest or during the picking. The safety interval for application before harvest in some instances is three weeks. There are recommendations regarding the maximum concentration of spraying solutions. Careful attention to these new regulations is of vital importance for the export of hops to the U.S.A.

**Pesticide  
Residues  
in Hops**

Exports of US-Hops Crop 1959					
September 1st, 1959 — February 29th, 1960					
Country	lbs.	Ztr. je 50 kilos	Country	lbs.	Ztr. je 50 kilos
Ethiopia . . . . .	11,023	100	b. f. . . . .	8,969,421	81,372
Angola . . . . .	4,958	45	Jamaica . . . . .	50,121	455
Argentine . . . . .	27,558	250	Japan . . . . .	15,959	144
Belgium-Luxembourg . . . . .	165,640	1,503	Corea . . . . .	15,433	140
Belgian Congo . . . . .	105,768	960	Mexico . . . . .	2,951,139	26,773
Bolivia . . . . .	79,106	718	Moçambique . . . . .	10,065	91
Brazil . . . . .	1,164,113	10,561	Netherlands . . . . .	232,803	2,112
Canada . . . . .	2,005,944	18,198	Norway . . . . .	56,721	515
Ceylon . . . . .	44,900	407	Austria . . . . .	55,115	500
Chile . . . . .	302,855	2,747	Pakistan . . . . .	5,346	48
Colombia . . . . .	2,129,644	19,320	Penama . . . . .	60,991	553
Costa Rica . . . . .	30,623	278	Paraguay . . . . .	11,023	100
Cuba . . . . .	352,115	3,194	Peru . . . . .	370,205	3,358
Denmark . . . . .	316,308	2,870	Philippine Isl. . . . .	70,107	636
Germany West . . . . .	1,424,297	12,921	Portugal . . . . .	4,046	37
Dominican Republic. . . . .	27,383	248	Union of South Africa . . . . .	104,950	952
Ecuador . . . . .	89,065	808	Sweden . . . . .	106,310	964
Formosa . . . . .	19,841	180	Switzerland . . . . .	193,397	1,754
Greece . . . . .	68,734	624	Trinidad . . . . .	7,682	70
Great Britain . . . . .	146,558	1,330	Czechoslovakia . . . . .	442,526	4,015
Guatemala . . . . .	63,885	580	Uruguay . . . . .	200,150	1,816
Honduras . . . . .	25,222	229	Venezuela . . . . .	494,868	4,489
India . . . . .	4,628	42	Other Countries . . . . .	21,137	192
Ireland . . . . .	300,956	2,730	Total . . . . .	14,449,415	131,086
Israel . . . . .	39,711	360			
Italy . . . . .	18,586	169			
c. f. . . . .	8,969,421	81,372	110.23 lbs. = 1 Ztr. zu 50 kilos		

**Hop Exports  
U.S.A.**

Hop Imports U.S.A. Crop 1959		
September 1st, 1959 — February 29th, 1960		
Country	lbs.	Ztr. je 50 kg
Belgium-Luxembourg . . . . .	6,063	55
Germany West . . . . .	1,349,054	12,239
Jugoslavia . . . . .	1,265,298	11,479
Other Countries . . . . .	191,790	1,740
Total . . . . .	2,812,205	25,513

**Hop Imports  
U.S.A.**

## Japan

In the district of **Nagano** the winter was mild, and favourable warm weather in April and May 1959 benefited **Spring Work**. The young shoots showed vigorous growth. In June and July, the temperatures were high and ample rainfalls were noted as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
55.4	46.7	56.6	69.4	70.0	102.5	156.1	170.5	137.7 mm

The hops made good progress and had a rich set of cones. The height of the trellises was reached between June 10th and 15th and the hop yards were in full **Bloom** during the first decade of July. The vines had a good overhang. Sunny weather beginning in mid-July benefited the formation of the cones. **Downy Mildew** was a distinct danger under the humid and warm weather in 1959 but was held in check by sprayings. **Red Spider**, too, had to be controlled. Sprayings were effected from ten to thirteen times. **Picking** started on July 30th and was finished on August 30th. It is much to be regretted that about half of the acreage suffered heavy damages by a typhoon on August 14th, 1959. There was a lack of labour and it seems that this condition is repeated in the district of Nagano every year. Only about 3% of the crop are handled by picking machines of Japanese construction.

In the district of **Hokkaido** the thaw in 1959 was earlier than normal. Warmer weather in April and May benefited growth. The development of the hop yards progressed better than in former years as a result of higher temperatures and more ample rainfalls which were distributed as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
98.8	62.7	49.0	140.7	64.1	31.9	58.8	103.6	151.0 mm

Later during the growing season, however, cooler weather prevailed. The hops reached the height of the trellises during the second half of June and were in **Bloom** between July 10th and 20th. The cooler weather continued until the ripening of the hops which did not benefit the development of the cones. Up to twelve sprayings were effected against pests and diseases. **Picking** started on August 11th and finished on September 4th. No picking machines are in operation but there were sufficient pickers available. The weather during the harvest was favourable with the exception of rainfalls during two days at the close of the harvest.

The hops of crop 1959 were of good quality as far as harvested before the typhoon. Later picked hops were of brown colour. Lupulin was amply present but the hops picked after the typhoon had suffered in this respect as well. The **Quality** was judged as follows: 70.8% choice, 13.1% medium, 16.1% off-grade.

All hops are purchased by sponsoring breweries. Prices were as follows: Grade I Yen 21,700.—, Grade II Yen 19,150.—, Grade III Yen 16,550.— per 50 kilos.

## Australia

In the district of **Tasmania** the hops grew well during the entire season until the harvest in March 1959. Damages by pests and diseases were negligible. In the main district of New Norfolk the rainfalls were distributed as follows:

1958					1959		
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
31.0	2.6	46.1	19.3	28.3	12.5	5.5	4.5 inch.

The weather was warmer than normal and dry since the beginning of January 1959. The hops had reached the height of the trellises in December 1958. **Picking** started in mid-February 1959 and was finished in March 1959 under warm and dry weather conditions. There was no lack of labour. About 7% of the crop are harvested by picking machines.

The crop was sold out completely. The price was sh. 6/— per lb.

## New Zealand

The hops developed favourably under fine weather conditions in November and December 1958. Precipitations were distributed as follows:

1958					1959		
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
2.57	2.10	1.84	0.44	5.78	1.19	0.41	5.51 inch.

The weather continued favourable in January 1959 but an exceptional dryness in February 1959 hampered the development of the cones. The dry spell brought a strong infestation of **Red Spider** which had to be controlled.

The hops had reached the height of the trellises by the end of December 1958 and were longer than usual in **Bloom** in January 1959. The vines showed a good overhang. **Picking** started at the end of February 1959 and was at times interrupted by rains. There was no lack of labour. About 90/95% of the crop are picked by hand. Four picking machines are in operation.

The cones were somewhat irregular in size but showed a good content of lupulin.

# Crop 1960

The following informations have been received up to now from the Southern hemisphere where hops are picked in March of each year:

Cooler weather at the beginning of the Southern spring (October 1959) retarded growth but there were no frost damages. The development remained tardy until November. Warmer weather from that time on benefited growth until harvest which occurred only one week later than usual. Rainfalls were distributed as follows:

Union of South Africa

1959					1960		
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
3.49	0.59	6.42	1.91	2.64	4.28	0.74	7.07 inch.

The hops reached the height of the trellises in December 1959 and were in **Bloom** at the beginning of January 1960. The vines did not develop an especially good overhang. Cones ripened over the entire length of the vines. **Picking** started on February 15th and was finished on March 21st, 1960, under good, sometimes too hot weather. There was no lack of labour. About 25% of the crop are harvested mechanically. The hops were not quite so good as the year before. **Quality** was judged as follows: 54% choice, 37% medium, 9% off-grade. The total crop was sold at an average price of sh. 4/9 per lb.

**Sierra de la Ventana.** (Prov. Buenos Aires). In this district growth of the hops suffered from heat and dryness from December 1959 until February 1960. Only 5,732 lbs. were harvested on an acreage of 74 acres.

Argentina

**Mar del Plata.** (Prov. Buenos Aires). The growth of the hops was normal in spite of the hot summer and lack of precipitations. The acreage of 86 acres produced a crop of 32,187 lbs.

**Rio Negro and Neuquén.** In these districts, situated on the upper reaches of the river Río Negro, hop yards are irrigated. **Red Spider** appeared especially in the area of Cinco Saltos and was controlled by sprayings. The crop of this district amounted to a total of about 330,690 lbs. In the district of **El Bolsón (Río Negro)** hop yards are irrigated as well. Here the excessive hot weather in March 1960 resulted in a premature ripening of the hops. The crop totalled 55,115 lbs.

On the average, the vines reached the height of the trellises during the middle of November 1959 and **Bloom** started during the second half of December. The vines showed a good overhang in the district of Río Negro whereas in the province of Buenos Aires the hops generally remained pointed. **Picking** started in the province of Buenos Aires during the second half of February 1960 and was finished about the beginning of March. In the valley of Río Negro the harvest started about the same time but was somewhat more prolonged. In the district of El Bolsón the harvest started only during the second half of March 1960 and was finished at the beginning of April. Weather conditions during the hop harvest were good. There were five picking machines in operation which handled about 30% of the crop.

**Quality** was judged as follows: 50% choice, 35% medium, 15% off-grade. On a total acreage of 630 acres (of which 136 acres new gardens) a total harvest of 423,724 lbs. was produced. It has to be noted that a certain number of hop yards were not harvested. The hops crop 1960 were completely sold out at a price of Pesos 140.— per kilo for choice quality.

The winter 1959/60 was mild with scant precipitation. Necessary snowfalls to replenish subsoil moisture fell only in February 1960. The hops came well out of dormancy in all districts of production.

Growth 1960 in Germany

**Hallertau.** **Spring Work** started early in March. The young shoots were off to a good start but were hampered in growth later on by cold and dry weather. First preventive sprayings against **Downy Mildew** and pests were effected. A forceful growth resulted under partially very warm weather until the end of May/beginning of June and numerous laterals appeared. Welcome rainfalls on June 9th/10th brought necessary humidity for further development. Pests and diseases were noted in a limited way only locally.

**Tettang.** An early and dry spring favoured the **Uncovering** and **Cutting** of the hops which was finished in mid-April. The cold wave at the end of April/beginning of May retarded growth. In contrast to other districts ample rainfalls in April brought sufficient humidity. In mid-May the hops showed a healthy and strong aspect and had reached already up to 1.5 meters. Warm weather until the first half of June favoured growth and the development of a good set of laterals. Ample precipitations on June 9th/10th were very welcome. The vines reached three quarters of the height of the trellises on the average and in part full height. Hop yards showed a very healthy aspect, there were scarcely any signs of pests and diseases.

**Spalt.** **Spring Work** started under dry weather at the beginning of April and was finished by the end of the month. The weather was cold until the beginning of May and there resulted some **Night Frosts**. Excessive dryness favoured **Fleas** which, however, were controlled promptly and efficiently. In mid-May the general stand of the hop yards was not quite satisfactory. The plants could improve somewhat after thunderstorms and rainfalls. Lack of precipitations until the first half of June, however, was not favourable for the development. Sufficient rainfalls on June 9th/10th brought the necessary moisture. The plants showed an ample set of laterals especially in the middle and upper part of the vines. Additional rainfalls are necessary especially for the district of Spalt.

**Hersbrucker Gebirge.** The **Uncovering** and **Cutting** started during the end of March and was finished in mid-April. The weather was mostly cold in April and May with occasional **Frosts**. Rainfalls were lacking during this time so that growth was retarded. The hops had reached up to 1.5 meters in mid-May. There were scarcely any signs of pests and diseases. Ample rainfalls in mid-May improved soil moisture and together with warm weather favoured growth and the development of laterals. Generally the hop yards showed a healthy aspect.

**Wurtemberg.** In this district, too, dryness favoured **Spring Work** but the development of the young shoots was retarded by cold weather and lack of moisture. Somewhat higher temperatures in mid-April resulted in a better growth but temperatures went down again on April 23rd until 0° C. and there were **Frosts** until —5° C. about the end of April. The weather turned warmer and more rains in mid-May improved growth. The plants reached about half of the height of the trellises. Preventive sprayings against **Aphids** were effected up to three times.

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In mid-June, the general aspect of the hop yards showed a very good progress for that time of the year. Hop gardens are very healthy almost everywhere so that preventive sprayings generally had to be applied only locally. Warm and sunny weather as well as sufficient precipitations will further improve the coming crop.

**JOH. BARTH & SOHN**

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