

# Joh. Barth & Sohn

HOPS SINCE 1794

HOP FARM BARTHOF HALLERTAU

TELETYPE 06/22030  
CABLE ADDRESS:  
BARTHSONN NÜRNBERG

NÜRNBERG 2

P. O. B. 331  
TELEPHONE 4 45 51/53

August 15th, 1961

## HOP REPORT 1960/61

The world economy was influenced by a passing recession in the USA, whereas the boom situation in Europe continued to prevail.

**Economical  
Situation**

Welcome tendencies towards an arrangement between the EEC (European Economic Community) and EFTA (European Free Trade Association) have been noted with pleasure by all circles concerned. In Western Germany, the scarcity of labour has become more pronounced. Western Germany has started to contribute to the economical assistance to countries of development and it is expected that this participation will be increased in the future.

On March 4th, 1961, a **Revaluation** of the D-Mark by 5% took place. The rate of discount was decreased by 1% on November 11th, 1960, and by ½% both on January 20th and May 4th, 1961, and stands now at 3%.

World production of beer in 1960 shows an **increase** of about **12.35 Million Bbl.** against 1959. The percentage rates of increase are as follows: Western Europe +2.7%, Eastern Europe +10.8%, North America +1.3%, Central and South America -1.1%, Africa +9.6%, Asia +7.8% and Australia +5.4%.

**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. = 1.102 cwt. (USA.)	1 cwt. (USA.) = 100 lbs. = 45.36 kg = 0.9072 Ztr.
	0.984 cwt. (Brit.)
	1 cwt. (Brit.) = 112 lbs. = 50.8 kg = 1.016 Ztr.
1 quarter (qr) = 400 lbs. = 181.44 kg (barley)	1 Ztr. = 0.27555 qr.
48 lbs. = 21.77 kg (barley, malt)	1 Ztr. = 2.2965 bu.
1 bushel (bu) = 56 lbs. = 25.4 kg (corn, millocorn)	1 Ztr. = 1.9685 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 <sup>2</sup> , 1 mm = 0.04", 1" = 25 mm.	

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Production of Beer 1960					
Country	1000 bbl. of 31 gall. each		Country	1000 bbl. of 31 gall. each	
Germany W.	45,796		b. f.		327,932
East	15,340	61,136	Congo	1,266	
England		36,958	Algiers	1,108	
USSR		19,763	Union of South Africa	682	
France		14,710	Rhodesia *)	469	
Czechoslovakia		12,017	British East Africa	294	
Belgium		11,633	Morocco	268	
Poland		5,778	Ivory Coast	213	
Austria		4,483	Cameroons	205	
Denmark		3,658	Nigeria	183	
Hungary		3,281	Egypt *)	102	
Netherlands		3,067	Senegal	98	
Ireland *)		2,844	Tunis	85	
Spain		2,830	Angola	84	
Switzerland		2,804	Ghana *)	68	
Italy		2,119	Sudan *)	68	
Sweden		1,778	Mozambique	65	
Jugoslavia		1,389	South West Africa	53	
Roumania *)		1,364	Ethiopia *)	51	
Finland		936	Dahomey	43	
Bulgaria		920	Republic Congo	26	
Norway		747	Guinea	17	
Greece		384	Madagascar	17	
Luxembourg		362			
Portugal *)		281	<b>Africa</b>		5,465
Malta *)		27	Japan	7,908	
Iceland		13	Philippine Islands	798	
<b>Europe</b>		195,282	Vietnam	469	
U. S. A.		93,416	China *)	426	
Canada		10,982	Singapore	268	
Mexico		7,015	Turkey *)	268	
Brazil		6,392	South-Corea *)	169	
Columbia		5,065	Israel	153	
Venezuela		2,131	Indonesia	151	
Argentina		1,875	Hongkong	110	
Cuba		1,445	India	85	
Peru		1,183	Formosa *)	65	
Chile		1,065	Iran *)	60	
Uruguay		537	Thailand	55	
Ecuador		443	Ceylon *)	44	
Panama		184	Cyprus	37	
El Salvador		160	Iraq	28	
Bolivia		158	Lebanon *)	28	
Guatemala *)		140	Syria	17	
Honduras		118	Pakistan	13	
Costa Rica *)		85	<b>Asia</b>		11,152
Dominican Republic		80	Australia	9,172	
Jamaica *)		56	New Zealand	2,086	
Paraguay		40	Tahiti	13	
Nicaragua		36	New Caledonia	4	
Trinidad *)		27	<b>Australia/Oceania</b>		11,275
Martinique		17	<b>Total</b>		355,824
<b>America</b>		132,650			
c. f.		327,932	*) estimate		

**Beer Output  
in Western  
Germany**

Output of beer in Western Germany during the calendar year 1960 amounted to . . . . . 44,366,546 bbl.  
 Production of beer in the Western sector of Berlin for the same period was . . . . . 1,429,478 bbl.  
 Total 45,796,024 bbl.

These figures include 29,147 bbl. delivered tax-free to the occupation forces (1959 = 26,160 bbl.) as well as exports and other sales against foreign currency totalling 1,039,346 bbl. (1959 = 1,000,364 bbl.).

## Crop 1959 (Supplement)

Complete figures of imports and exports of hops crop 1959 during the period from September 1st, 1959, to August 31st, 1960, can now be stated as follows:

	Import	Export
Germany . . . . .	4,495,620 lbs.	14,795,071 lbs.
Belgium . . . . .	3,154,121 lbs.	1,120,819 lbs.
England . . . . .	852,409 lbs.	2,113,330 lbs.
U.S.A. . . . .	5,229,201 lbs.	18,459,446 lbs.

In March 1960, the hops of crop 1959 had been taken over by breweries with the exception of small remaining quantities in the USA. Even if, therefore, unsold hops no longer pressed upon the market, hop inventories in breweries had been replenished owing to attractive prices for crop 1959.

## Crop 1960

The mild winter 1959/60 brought little precipitation. Snowfalls necessary for the replenishing of subsoil moisture occurred only in February 1960. The hops came well out of dormancy in all districts of production. Dry and sunny weather until April 1960 favoured **Spring Work** which was finished in good time. The hops were off to a good start and showed a fine development of shoots during the second half of April. Growth was hampered by cold weather since the end of April/beginning of May. The weather became warmer in June but remained changeable. Strong **Winds** parched the earth and high temperatures were interrupted only occasionally by cooler spells. The weather was cool and rainy during the **Blooming** but the **Formation** of the **Cones** and the **Ripening** of the hops was favoured by warm, dry and sunny weather.

**Growth of the  
Hops Crop 1960  
in Germany**

The hops of crop 1960 showed more discolourations and less bitter value than normal as a consequence of the changeable weather. Uniformly green lots of hops were rare. In some locations of the districts of Hallertau, Spalt and Hersbrucker Gebirge the hops showed a few **Seeds**. It is supposed that this was a consequence of pollination from wild hops in distant parts, made possible by the strong winds in 1960. **Wind Whipping** was rather plentiful for this reason as well. Occasionally, the well developed cones had **Brown Tips** and this discolouration was sometimes shown by the lupulin.

Hops crop 1960 can not be included among the best qualities since the war.

Weather data from the Experimental Hop Farm Hüll/Hallertau							
1960	March	April	May	June	July	August	Sept.
Precipitations per month (mm)	41	50	61	108	70	108	32
Monthly average of air temperature °Celsius	4.4	7.0	12.5	16.2	15.2	15.6	11.5
Maxima of air temperature °Celsius	18.8	20.7	27.3	28.1	28.7	30.7	24.1
Minima of air temperature °Celsius	-4.8	-2.2	-2.4	4.1	2.6	4.5	-2.5
Monthly average of relative air humidity %	82	77	76	75	78	84	84
Other data:							
Snowfall	7 days	2 days	—	—	—	—	—
Rain and snow	—	2 days	1 day	—	—	—	—
Thunderstorm	2 days	—	5 days	5 days	5 days	4 days	—
Hail	—	—	1 day	—	—	—	—
Hoarfrost	10 days	6 days	6 days	—	—	—	4 days

## Acreage, Yield and Production 1959 and 1960

	Acreage 1959 Acres	Yield Pounds per acre	Production 1959 Pounds	Acreage 1960 Acres	Yield Pounds per acre	Production 1960 Pounds
Hallertau . . . . .	14,646	1,955	28,629,377	14,344	1,736	24,899,083
Spalt . . . . .	2,387	1,536	3,666,250	2,258	1,466	3,309,435
Hersbruck . . . . .	1,525	1,601	2,442,146	1,376	1,517	2,087,756
Jura . . . . .	445	1,859	827,276	440	1,597	702,826
Bavaria . . . . .	19,003	1,872	35,565,049	18,418	1,683	30,999,100
Tettnang . . . . .	1,940	1,715	3,327,954	1,821	1,578	2,873,586
R.H.W. . . . .	465	1,399	650,577	376	1,123	422,401
Baden . . . . .	82	1,175	96,341	74	1,557	115,190
Rheinpfalz . . . . .	86	772	66,358	62	1,417	87,853
<b>Germany West . . . . .</b>	<b>21,576</b>	<b>1,840</b>	<b>39,706,279</b>	<b>20,751</b>	<b>1,662</b>	<b>34,498,130**)</b>
<b>Germany East . . . . .</b>	<b>2,842</b>	<b>1,029</b>	<b>2,924,733</b>	<b>3,534</b>	<b>749</b>	<b>2,645,520</b>
Saaz (Zatec) . . . . .	15,889	607	9,645,125	15,889	750	11,922,477
Auscha (Ustek) . . . . .	3,707	714	2,645,520	3,707	965	3,575,861
Other Districts . . . . .	667	1,239	826,725	667	892	595,242
<b>Czechoslovakia . . . . .</b>	<b>20,263</b>	<b>647</b>	<b>13,117,370</b>	<b>20,263</b>	<b>794</b>	<b>16,093,580</b>
Alsace . . . . .	3,163	1,282	4,056,464	2,965	1,379	4,089,533
Dep. Côte d'Or . . . . .	321	687	220,460	321	858	275,575
Northern France . . . . .	529	1,615	854,283	526	1,572	826,725
Lorraine . . . . .	37	1,490	55,115	37	1,490	55,115
<b>France . . . . .</b>	<b>4,050</b>	<b>1,281</b>	<b>5,186,322</b>	<b>3,849</b>	<b>1,363</b>	<b>5,246,948</b>
Alost . . . . .	791	1,672	1,322,760	828	1,611	1,333,783
Poperinghe . . . . .	1,483	1,710	2,535,290	1,495	1,355	2,025,476
Vodelée . . . . .	49	1,125	55,115	49	1,350	66,138
<b>Belgium . . . . .</b>	<b>2,323</b>	<b>1,685</b>	<b>3,913,165</b>	<b>2,372</b>	<b>1,444</b>	<b>3,425,397</b>
Slovenia . . . . .	5,923	1,489	8,818,400	5,923	1,511	8,950,676
Backa . . . . .	3,583	523	1,873,910	3,583	1,176	4,212,991
<b>Jugoslavia . . . . .</b>	<b>9,506</b>	<b>1,125</b>	<b>10,692,310</b>	<b>9,506</b>	<b>1,385</b>	<b>13,163,667</b>
<b>Austria . . . . .</b>	<b>242</b>	<b>1,239</b>	<b>299,936</b>	<b>247</b>	<b>1,273</b>	<b>314,376</b>
Galicia . . . . .	487	421	205,248	563	427	240,632
León . . . . .	1,055	506	533,734	1,295	422	546,520
Asturias . . . . .	138	400	55,225	200	450	89,948
Vasco Navarra . . . . .	10	750	7,496	15	375	5,622
<b>Spain . . . . .</b>	<b>1,690</b>	<b>474</b>	<b>801,703</b>	<b>2,073</b>	<b>426</b>	<b>882,722</b>
<b>Switzerland . . . . .</b>	<b>22</b>	<b>1,253</b>	<b>27,558</b>	<b>22</b>	<b>1,453</b>	<b>31,967</b>
<b>Roumania . . . . .</b>	<b>1,236</b>	<b>713</b>	<b>881,840 *)</b>	<b>1,236</b>	<b>713</b>	<b>881,840 *)</b>
<b>Hungary . . . . .</b>	<b>885</b>	<b>309</b>	<b>273,150</b>	<b>1,663</b>	<b>225</b>	<b>374,782 *)</b>
<b>Poland . . . . .</b>	<b>5,159</b>	<b>706</b>	<b>3,644,204</b>	<b>5,612</b>	<b>623</b>	<b>3,494,291</b>
<b>USSR . . . . .</b>	<b>29,652</b>	<b>446</b>	<b>13,227,600 *)</b>	<b>29,652</b>	<b>446</b>	<b>13,227,600 *)</b>
<b>Continent . . . . .</b>	<b>99,446</b>	<b>952</b>	<b>94,696,170</b>	<b>100,780</b>	<b>936</b>	<b>94,280,820</b>
Kent . . . . .	11,436	1,276	14,588,389	11,090	1,390	15,416,547
Hants . . . . .	561	1,427	800,821	588	1,423	836,976
Surrey . . . . .	121	1,094	132,386	114	1,270	144,732
Sussex . . . . .	1,878	1,264	2,373,583	1,856	1,473	2,733,704
Hereford . . . . .	4,287	1,093	4,684,003	4,379	1,332	5,834,474
Worcester . . . . .	2,011	1,138	2,287,934	2,021	1,362	2,752,553
Other Counties . . . . .	54	1,509	81,460	52	1,488	77,381
<b>England . . . . .</b>	<b>20,348</b>	<b>1,226</b>	<b>24,948,576</b>	<b>20,100</b>	<b>1,383</b>	<b>27,796,367</b>
<b>Europe . . . . .</b>	<b>119,794</b>	<b>998</b>	<b>119,644,746</b>	<b>120,880</b>	<b>1,010</b>	<b>122,077,187</b>
Washington . . . . .	18,599	1,640	30,503,948	16,400	1,620	26,567,965
Oregon . . . . .	5,199	1,340	6,967,969	4,500	1,310	5,894,990
California . . . . .	5,799	1,610	9,338,024	5,100	1,470	7,496,963
Idaho . . . . .	3,501	1,939	6,789,948	3,200	1,880	6,016,023
<b>U.S.A. . . . .</b>	<b>33,098</b>	<b>1,619</b>	<b>53,599,889</b>	<b>29,200</b>	<b>1,575</b>	<b>45,975,941</b>
<b>Canada . . . . .</b>	<b>1,174</b>	<b>1,380</b>	<b>1,620,381 *)</b>	<b>848</b>	<b>1,399</b>	<b>1,186,075</b>
<b>Tasmania . . . . .</b>	<b>1,446</b>	<b>2,341</b>	<b>3,384,502</b>	<b>1,448</b>	<b>1,934</b>	<b>2,799,952</b>
<b>Australia . . . . .</b>	<b>425</b>	<b>1,698</b>	<b>721,455</b>	<b>450</b>	<b>1,564</b>	<b>703,708</b>
<b>New Zealand . . . . .</b>	<b>667</b>	<b>1,635</b>	<b>1,090,285</b>	<b>591</b>	<b>1,520</b>	<b>898,595</b>
<b>Japan . . . . .</b>	<b>2,155</b>	<b>1,284</b>	<b>2,767,214</b>	<b>2,244</b>	<b>1,524</b>	<b>3,419,886</b>
<b>Manchuria . . . . .</b>	<b>247</b>	<b>402</b>	<b>99,207 *)</b>	<b>247</b>	<b>402</b>	<b>99,207 *)</b>
<b>Northern-Corea . . . . .</b>	<b>1,236</b>	<b>196</b>	<b>242,506</b>	<b>1,236</b>	<b>161</b>	<b>198,414</b>
<b>Argentine . . . . .</b>	<b>754</b>	<b>456</b>	<b>343,918</b>	<b>630</b>	<b>673</b>	<b>423,724</b>
<b>South Africa . . . . .</b>	<b>259</b>	<b>975</b>	<b>252,427</b>	<b>264</b>	<b>832</b>	<b>219,578</b>
<b>Total . . . . .</b>	<b>161,255</b>	<b>1,140</b>	<b>183,766,530</b>	<b>158,038</b>	<b>1,126</b>	<b>178,002,267</b>

\*) Estimate

\*\*) Official Weight May 12th, 1961.

**HALLERTAU.** Owing to favourable climatic conditions **Spring Work** started early in March. The hops developed good shoots in April under dry and sunny weather. The vegetation, however, was interrupted by cool and rainy weather at the end of April/beginning of May. Low temperatures persisted until the end of May and resulted in occasional **Nightfrosts**. Very warm weather started by the end of May/beginning of June which, together with sometimes ample precipitations benefited growth. The vines had reached an average height of 4 meters in mid-June and showed an ample set of laterals. Sprayings against **Downy Mildew** and **Pests** were carefully effected. The hops reached the height of the trellises by the end of June and laterals developed satisfactorily as the weather was warm with welcome rains. **Blooming** started about June 20th and lasted until mid-July under lower temperatures with little precipitation and very windy weather. About this time, **Verticillium Wilt** was noted again. Conditions continued changeable and cool. The **Formation** of the **Cones** started by the end of July and developed favourably during the first half of August despite ample rainfalls. Warm and sunny weather started by the end of August. A **Hail Storm** during the night of August 23rd/24th occasioned severe local damages especially in the district of Au.

**Picking** started on August 25th and was finished on September 10th, 1960.

**Quality.** The range of qualities of Hallertau hops crop 1960 was wider than in normal years. Uniformly green lots were rare. The very light coloured lupulin had a good aroma. The well grown cones were of average size. Drying was good, but picking showed the increased use of machines which resulted in more stems and leaves than in 1959.

**SPALT.** The **Uncovering** and **Cutting** started at the beginning of April and was finished under dry weather by the end of that month. The hops had wintered well and were off to a good start.

The first half of May showed cooler weather with occasional **Nightfrosts** which hampered growth. Higher temperatures during the second half of May together with sometimes ample rainfalls benefited growth. Sprayings against **Downy Mildew** as well as **Pests** were effected. The vines reached about half of the height of the trellises and the gardens showed a healthy aspect. Warm summer weather in June benefited the development again. **Red Spider** had to be carefully controlled.

The hops had reached the height of the trellises in some locations already in June 1960. Especially in Spalt, where rains are always welcome, the possibility of **Premature Bloom** resulted as a consequence of dry weather. Cool nights, however, and welcome rains during the first half of July normalized the vegetative development of the hops. About this time, gardens were in full **Bloom** and early varieties already showed the beginning of the **Formation** of the **Cones**. The weather, especially at night, was too cool by the end of July and strong **Winds** which parched the earth hampered the **Ripening** of the hops. This, however, was offset by welcome rainfalls during the first half of August. **Picking** started around August 25th.

**Quality.** Spalt hops crop 1960 showed well formed cones with green colour somewhat on the yellowish side. Light lupulin of mild aroma was amply present. In Spalt, too, the use of machines during harvest was to be noted in the picking of the hops.

**TETTANG.** It was possible to start **Spring Work** early and finish until mid-April. The plants developed well under warm weather until mid-April, whereas growth was hampered by cooler, rainy weather during the second half of April.

Very favourable conditions were experienced by the end of May at which time early cut gardens already had reached half the height of the trellises. Warm weather and ample rains until the second half of June favoured the development. Preventive sprayings against **Pests** and **Diseases** were effected. The vines had reached the height of the trellises on the average by the end of June and showed some overhang.

The vegetative development was somewhat slowed down by cooler weather and rainfalls since the end of June/beginning of July. The hops were in **Full Bloom** in mid-July. The **Formation** of the **Cones** started early and continued until mid-August under ample rainfalls and little sunshine. The weather turned more favourable shortly before the harvest which benefited the **Ripening** of the hops. **Picking** was in full swing on August 25th, 1960.

**Quality.** Tettang hops crop 1960 showed cones of not quite uniform size. The colour was green and somewhat yellowish. Very light coloured lupulin of fine aroma was especially ample. Tettang hops, too, showed the influence of the mechanical harvest.

**WURTTENBERG.** The weather in March 1960 was changeable. **Uncovering** and **Cutting** started at the beginning of April and was finished under dry and cool weather. At that time there still were local **Snowfalls**.

The weather was dry at the beginning of May and the hops were off to a slow start for this reason even if temperatures were higher. Sufficient rainfalls in mid-May allowed for a better growth. Continued rains hampered the sprays. The vegetative development of the hops continued forcefully under dry and warm conditions during the first half of June. The plants had reached about half the height of the trellises. The gardens showed a healthy aspect and a good development of laterals was to be noted. Dry and warm weather continued during June, so that in gardens on sandy locations first indications of insufficient moisture were to be noted. The vines had reached the height of the trellises on the average and there was already some overhang.

The plants showed no good progress in July as the weather was cool and rainy with strong **Winds**. Early varieties were in **Bloom** whereas late varieties showed the first **Burrs**. Very welcome warmer weather for better growth and the **Formation** of the **Cones** as well as the **Ripening** of the hops started at the beginning of August, sometimes interrupted by heavy rainfalls. Generally the hops could develop satisfactorily until harvest.

**Quality.** Wurttemberg hops crop 1960 had average sized cones. The colour was not always uniformly green. The lupulin was healthy and of good aroma, but not so amply present as the year before.

**HERSBRUCKER GEBIRGE.** Dry weather at the end of March 1960 allowed an early start of **Spring Work** which was finished during the second half of April. The hops came well out of dormancy.

The young shoots were hampered by cool weather with occasional **Nightfrosts** by the end of April/beginning of May. Somewhat warmer weather later on benefited the plants, but there was not enough rain. Eagerly awaited precipitation came during the second half of May and temperatures rose considerably. The plants showed good growth during the first half of June under warm and favourable weather and reached about half the height of the trellises in mid-June. It was necessary to carefully control **Downy Mildew** as well as **Aphids** and **Red Spider**. Generally the gardens showed a healthy aspect.

During the second half of June welcome rainfalls arrived and the warm weather continued. The hops reached the height of the trellises on the average and showed some overhang. Long and well developed laterals were plentiful.

The warm weather changed to cooler temperatures in July. Early varieties showed first **Bloom**. The weather was dry during the first half of July but rains fell during the second half of that month and the temperatures were low. Early varieties were in **Full Bloom** whereas late varieties were in **Burrs**. The aspect of the hop yards was not quite uniform, but healthy on the average.

Cool weather and ample rainfalls continued until mid-August. At that time the **Formation** of the **Cones** started on early varieties. Warmer weather during the second half of August favoured the development especially on late varieties. **Picking** started on August 28th.

**Quality.** The average sized cones of Hersbruck hops crop 1960 were good in colour with the exception of some **Wind Whipping**. Light coloured lupulin was amply present. Especially in the Hersbruck district, farmers will have to pay attention to leaves and stems in hops, harvested by machines.

**Crop Estimate  
1960**

A comparison of figures of the official crop estimate and officially weighed quantities is incomplete considering stocks still unsold on farms. Including these stocks, however, the full result of crop 1960 may rather well correspond to the estimate.

	Yield estimated lbs.	Yield weighed on May 12th, 1961 lbs.	Unsold stocks on farms lbs.
Hallertau . . . . .	26,235,000	24,899,083	abt. 1,325,000
Spalt . . . . .	3,305,000	3,309,435	
Tettnang . . . . .	2,975,000	2,873,586	
Hersbruck Gebirge .	2,205,000	2,087,756	abt. 110,000
Wurttemberg . . . .	550,000	422,401	
Jura . . . . .	660,000	702,826	
Baden . . . . .	110,000	115,190	
Rheinpfalz . . . . .	110,000	87,853	
Total . . . . .	<u>36,150,000</u>	<u>34,498,130</u>	<u>abt. 1,435,000</u>

**Bitter Values of Crop 1960**

Origin	Total resin content anhydric	Soft resins %	Humulon %	Lupulon + Fraction of soft resin %	Hard resins %	Bitter value Wöllmer					
						1960	1959				
Hallertau . . . . .	17.3	15.2	87.86	6.1	35.26	9.1	52.60	2.1	12.14	7.1	7.1
Hallertau/Au . . . . .	16.5	14.8	89.69	6.0	36.36	8.8	53.33	1.7	10.31	7.0	7.3
Hallertau/Mainburg . . . . .	16.7	14.6	87.43	5.7	34.13	8.9	53.30	2.1	12.57	6.6	7.3
Hallertau/Wolnzach . . . . .	16.6	14.9	89.76	5.8	34.94	9.1	54.82	1.7	10.24	6.8	7.0
Spalt . . . . .	16.7	14.7	88.02	6.0	35.93	8.7	52.09	2.0	11.98	7.0	6.8
Tettnang . . . . .	18.8	16.5	87.77	6.8	36.17	9.7	51.60	2.3	12.23	7.9	6.7
Württemberg . . . . .	16.7	15.1	90.42	6.1	36.53	9.0	53.89	1.6	9.58	7.1	7.5
Hersbruck . . . . .	17.6	15.8	89.77	6.4	36.36	9.4	53.41	1.8	10.23	7.4	7.9
Alsace . . . . .	18.5	16.8	90.81	6.9	37.30	9.9	53.51	1.7	9.19	8.0	8.7
Belgium/Northern-Brewer	21.8	19.4	88.99	10.7	49.08	8.7	39.91	2.4	11.01	11.7	12.9
Saaz . . . . .	14.3	12.5	87.41	4.9	34.26	7.6	53.15	1.8	12.59	5.7	6.4
Jugoslavia . . . . .	17.4	15.8	90.80	7.9	45.40	7.9	45.40	1.6	9.20	8.8	8.7
U.S. Seedless . . . . .	14.2	12.7	89.44	5.4	38.03	7.3	51.41	1.5	10.56	6.2	7.0

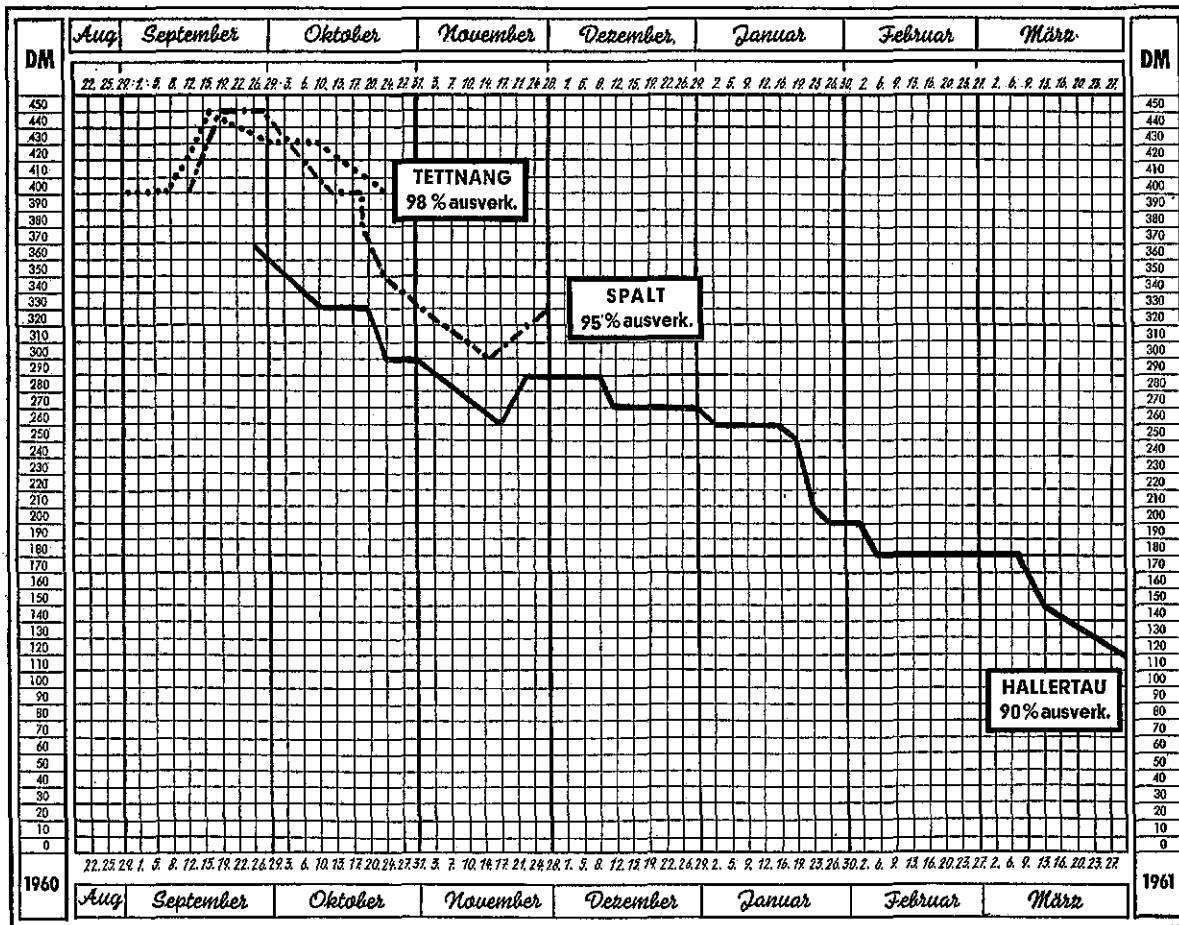
The chemical composition as well as the transformation of lupulin depend upon vintage and variety. The bitter values of hops crop 1960 were lower on the average than in 1959. A special characteristic of crop 1960 is the fact, that the changing of soft resins into hard resins went on somewhat more speedily than in other years.

Verticillium Wilt continues to expand in the hop yards of the Hallertau. It is estimated that about 1250 to 1500 acres of hop yards are affected. The infestation varies from a few plants only up to 60% of the hills and more. Hop yards where 50% of the hills are infested, have been ploughed out without exception. It is estimated that about 500 farms in about 75 villages within the Hallertau suffer from Verticillium Wilt. Up to now this disease has not been noted in other districts of production.

**Verticillium Wilt**

The necessity of automation on farms has accelerated the installation of picking machines despite the high capital necessary. Present indications point to about 850 picking machines in use for crop 1961 against about 450 machines during the harvest of 1960. About half of the hop production in Germany will then be harvested by machines.

**Machine Picking**



**Development of Quotations Crop 1960**

## Hop Purchase Crop 1960 in Germany

About 25% of the hops crop 1960 were already under contract mainly in the district of Hallertau and these hops, therefore, remained independent of the market development.

A very intensive propaganda by the Union of Hop Growers was effected in connection with the sale of hops not under contract. This agitation resulted in the hop farmers' periodically disregarding the fact, that prices for hops on the international market depend solely upon supply and demand. A minimum price of DM 400.— per 50 kilos was demanded without considering qualities. This demand was unrealistic and ignored the real situation on the hop world market.

During September/October 1960, especially Tettwang and Spalt hops benefited by the artificially sustained market situation. These two proveniences which are mostly in demand from home breweries, were sold out until the end of October 1960.

In contrast, the Hallertau as the most important district of production as well as other smaller districts, especially Hersbruck Gebirge, were hard hit by the development of the market. As a consequence of sales resistance by farmers, the most important trading month of September remained practically without sales. During this time, mostly contracted hops were taken over. Only around October 10th, 1960, and under the influence of slowly crumbling quotations, a reluctant unloosening began to be noted on the practically paralysed hop market. In the meantime, however, important weeks had been lost for the export trade.

In the course of decreasing prices, quotations for Hallertau and Hersbruck hops reached a level under cost of production about the beginning of year 1961. In May 1961 there were still about 15 - 20,000 cwts. of Hallertau and Hersbruck hops unsold on farms and in the hands of cooperatives.

**HALLERTAU.** In the course of September and until the beginning of October 1960, only sporadic purchases were effected on a basis of DM 400.—. About October 10th, prices stood at DM 360.—/400.— but this could not be maintained owing to slow demand. Prices reached DM 270.—/300.— by the end of October and went down until DM 250.—/280.— in mid-November under continuing slow trading. This basis was maintained until the end of December 1960 and purchases were effected in a regular volume. Considerable unsold stocks on farms which were estimated at about 50 - 60,000 cwts. at the beginning of 1961 resulted in a further decrease of prices which reached DM 180.— at the beginning of February and were down to DM 120.— in April 1961.

**SPALT.** First lots were sold on September 12th, 1960, at DM 400.—/420.—. Demand was strong and quotations rose within one week to DM 450.—/470.—. Including purchases by the cooperative, about 80% of hops on farms had changed hands until the end of September.

After the first demand had been satisfied, trading became slower. Prices were maintained at DM 400.—/430.— until mid-October and decreased to DM 350.—/380.— by the end of that month. Last remaining lots were sold until mid-December 1960 on a basis of DM 300.—/350.—. Remaining small stocks on farms after that date were in hands of very reluctant sellers.

**TETTANG.** First small purchases were effected at DM 380.—/400.— at the end of August 1960. Prices increased to DM 430.— in mid-September and reached their peak of DM 440.—/460.— around September 20th/22nd, 1960. A bracket of DM 430.—/450.— was maintained until the middle of October. About this time, the district was sold out to a considerable extent. Small lots were traded at the end of October at DM 390.—/410.— and last lots changed hands at DM 360.—/370.— at the beginning of November 1960.

**HERSBRUCKER GEBIRGE.** Prices for first lots at the end of August on a basis of DM 280.— were succeeded by a quotation of DM 300.— at the beginning of September. Trading was very slack and quotations were practically nominal. As farmers refrained from selling and increased their asking prices, trading came to a standstill. During the last decade of September a top price of DM 330.— was occasionally reached. Trading, however, was insignificant and quotations decreased to DM 280.—/300.— and reached DM 220.—/240.— at the beginning of November. Demand, however, remained restricted. The local cooperative accepted considerable quantities and for this reason only there remained scarcely any unsold stocks on farms by the end of 1960.

**WURTEMBERG.** Trading in late varieties of this district developed only by the end of September. The crop was sold out within a few days. Prices were from DM 300.— to DM 350.— according to quality.

## Nürnberg Market

The very hesitant market development especially during the beginning of the season seemed to provide small chance for the traditional equalising activity of the Nürnberg market. In addition, receding quotations turned purchases on farms more attractive from time to time. Despite this situation, the Nürnberg market functioned as usual especially during occasional paralization of trade on farms.

During the month of September 1960, trading was sporadic as a result of general insecurity. Demand remained slack in October 1960 as well. Hallertau hops were quoted at



DM 370.—/380.— at the beginning of October and declined to DM 320.—/350.— by the end of that month. Hersbruck hops receded from DM 320.—/325.— to DM 300.— during October. Spalt and Tettang hops, too, declined as well from DM 450.—/465.— to DM 415.—/425.—.

Until the close of year 1960 the market remained at some periods without activity and quotations were only nominal. Hallertau hops were quoted at DM 270.—/310.— in mid-November. Higher prices of about DM 290.—/315.— demanded at the beginning of December 1960 could not be realized.

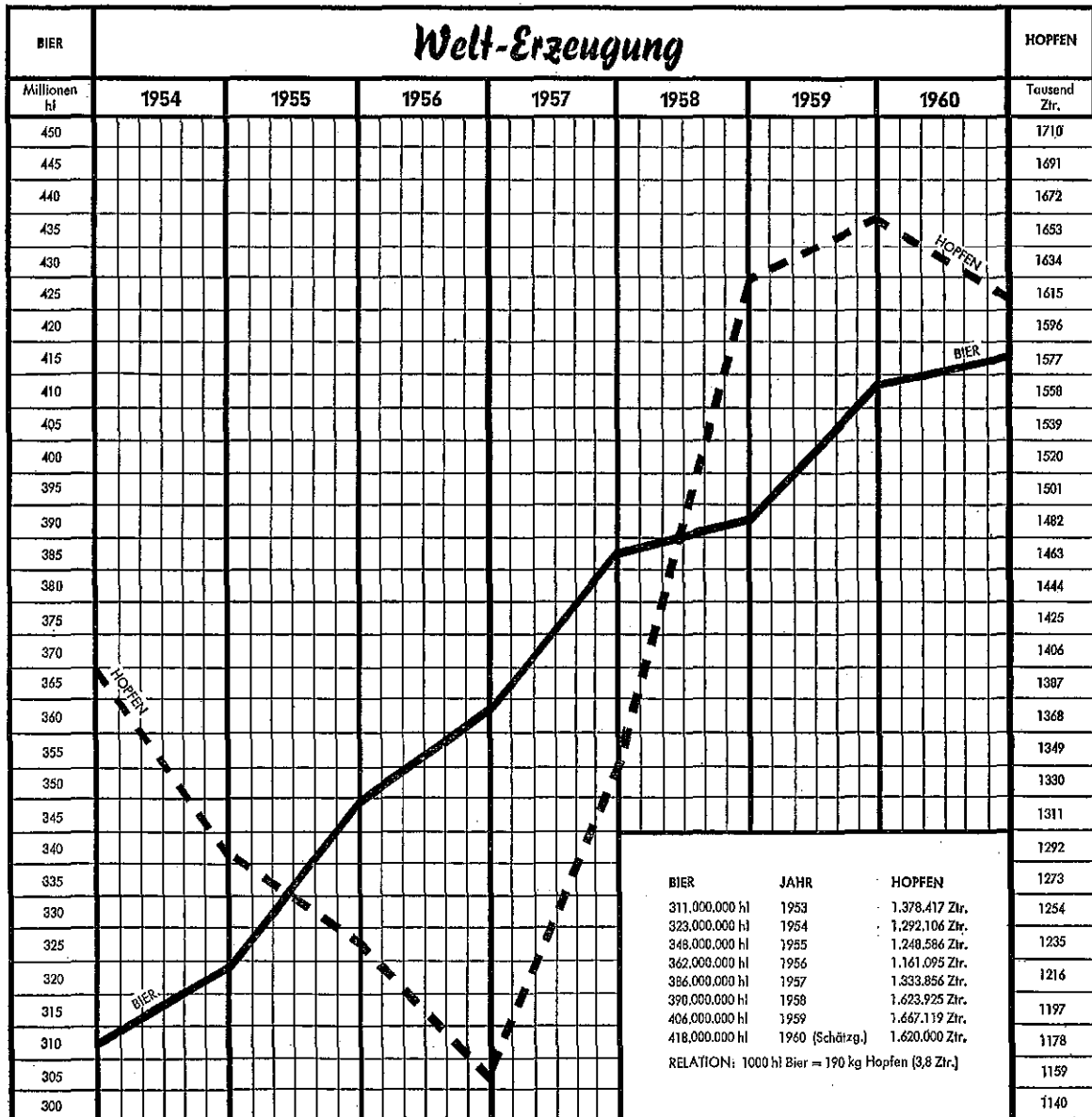
During the second half of January 1961 Hallertau hops were traded at DM 250.— and later at DM 230.—/220.—. Prices decreased until DM 190.—/200.— by the end of February. At this date Hersbruck hops were priced at DM 165.—/170.—, Tettang hops at DM 325.—/330.— and Spalt hops at DM 320.—/325.—.

The price differential in favour of Spalt and Tettang hops was further maintained in consequence of small stocks. The prices, however, were reduced along with quotations for Hallertau and Hersbruck hops. By the middle of April 1961 trading was slow and the following prices were quoted: Tettang and Spalt hops about DM 260.—, Hallertau hops about DM 135.— and Hersbruck hops about DM 110.— (All quotations based on prices for interim packed hops).

The Union of Hop Growers introduced hop auctions according to the system *Veiling* in order to obtain a co-ordination of supply as well as a more stable situation on the hop market. Auction halls were installed with official assistance at Wolnzach and Au in the Hallertau. In Tettang, the installation already in use for the auctioning of fruits and berries served for the auctioning of hops crop 1960 as well.

Small quantities were indeed auctioned off in Tettang. Auctions in the Hallertau, however, had practically no success as minimum prices demanded did not correspond to quotations on the world market.

### Hop Auctions



### World Production of Beer and Hops

Conforming to the effective situation, the above table has been adjusted to a relation of 0,19 kilos of hops per hectoliter of beer (3,8 cwt. of hops to 1,000 hl of beer).

Even if the hops of crop 1959 had been sold out completely, the favourable appearance of the sales position for crop 1960 to farmers was only a delusive one. There were ample inventories of hops in breweries and considerable quantities of hops crop 1960 were under contract. Most especially, however, all indications pointed to a crop volume in 1960 which would not be much smaller than the year before. The fact of a buyers market had remained unaltered.

As soon as quotations for export of Jugoslavian hops had been published by the end of August 1960, the price ideas and the marketing attitude of German hop growers resulted in world demand for hops bypassing the production in Germany so that hops from Czechoslovakia and from Jugoslavia had a preferred sales position.

In this connection, hop farmers in the Hallertau and Hersbruck did not only protect prices for the German special proveniences of Spalt and Tettngang but made possible the sellout of Jugoslavian and Czechoslovakian hops crop 1960 as well.

Events on the hop market for crop 1960 have shown that the competitive adjustment to the strongly export oriented hop producers of Eastern Europe becomes more and more a question touching the very basis of the German hop industry. In Jugoslavia especially, new acreages have been planted to hops during the last years, the production of which has to be sold on the world market at attractive prices.

In the USA, there were scarcely any sales possibilities for overages of hops crop 1960 not under contract. For these hops, prices receded far under cost of production.

The following quantities of hops remained unsold on the world market by the end of May 1961:

Germany . . . . .	abt. 12,000 cwts.
U. S. A. . . . .	abt. 15,000 cwts.
France . . . . .	abt. 5,000 cwts.
Belgium . . . . .	abt. 7,000 cwts.

It is to be expected that an unsold balance of hops crop 1960 has to be taken over into the next crop year.

**Farmers'  
Cooperatives  
in Germany**

The *Genossenschaftliche Hopfenverwertungs-Zentrale G.m.b.H., Nürnberg*, which is the holding organization for the local cooperatives, has now been authorized to trade in hops according to a partners' agreement of August 15th, 1960 (*Handelsregister Nürnberg HRB 823* dated September 21st, 1960). The quantity of hops handled by cooperatives in 1959 and 1960 has been estimated as follows:

Cooperative	Quantities handled		Percentage of Crop 1960
	Crop 1959	Crop 1960	
Hallertau . . . . .	2,100 cwts.	12,000 cwts.	abt. 5.0%
Spalt . . . . .	4,000 cwts.	7,000 cwts.	abt. 23.3%
Tettngang . . . . .	500 cwts.	2,000 cwts.	abt. 7.6%
Hersbruck Gebirg . . . . .	5,500 cwts.	6,800 cwts.	abt. 36.4%
Wurtemberg . . . . .	2,000 cwts.	2,000 cwts.	abt. 52.2%
Jura . . . . .	900 cwts.	1,000 cwts.	abt. 15.7%
Total . . . . .	15,000 cwts.	30,800 cwts.	ca. 9.5%

The cooperative **Hallertau** has made payment for all hops accepted until November 5th, 1960, as follows:

Grade I	DM 240.— per cwt.
Grade II	DM 225.— per cwt.
Grade III	DM 210.— per cwt.
Grade IV	DM 210.— per cwt.

Small quantities only have been taken over in November and December 1960. For these hops no more than the original advance payment of DM 200.— will be granted.

It is estimated that about 4,000 cwts. of Hallertau hops crop 1958 still remain unsold in the warehouse of the cooperative. For these hops, the cooperative still has to receive considerable restitutions of payment from members.

The cooperative **Spalt** has made the following payments for crop 1960 at the beginning of March 1961:

	Central	District
Grade Ia and I	DM 410.—	DM 405.—
Grade Ib	—	DM 390.—
Grade II	—	DM 380.—
Grade IIb	—	DM 370.—

The cooperative **Hersbruck** could realize stocks of crop 1960 only at a late time and at low prices. Farmers received an advance payment of DM 200.— per cwt. It may be possible that partial restitutions of payment will have to be effected if no Federal Subsidy is to be obtained. The sale of the stocks in hand had not been finished at the beginning of May 1960.

Both the cooperatives **Jura** as well as **Wurtemberg** still have small final lots unsold in hands so that they, too, could not yet disburse a final payment.

Whereas only about 30,000 cwts. of hops from the German crop 1959 were under contract, this quantity was increased to 75/80,000 cwts. for crop 1960 which corresponds to about 25% of the total crop volume. A further increase of contracts is to be expected for crop 1961. Advance contracts for hops, therefore, have now become a marketing influence in Germany as well. The overwhelming majority of contracts is made for Hallertau hops.

The European Parliament (Agricultural Commission) in Strasbourg has decided on January 19th, 1961, that first joint measures within the agricultural policy of the E. E. C. are not to be subjected to article 42 of the E. E. C. -agreement (regulation of competition on the agrarian sector). For this reason, it is already now possible to introduce measures for such agricultural products which are not subject to any marketing agreement.

A consultative commission for hops within the common market has been constituted on March 9th, 1961, by the representatives of Belgium, France and Germany during a session of the Organization of European Hop Producers in Paris. Measures to avoid discriminations against the production of hops within the common market are to be applied for at the Commission for the E.E.C. at Brussels. This organization, too, is studying the project of a marketing agreement for hops which has been submitted the year before.

**Import duties on Hops.** The progressive reduction of customs barriers within the E. E. C. has developed as follows:

	Custom Duties for Imports from			Additional Import Taxes
	Members of the EEC. since July 1st, 1960	since Jan. 1st, 1961	other countries since Jan. 1st, 1960	
Belgium . . . . .	6.4%	6 %	8 %	10%
Germany . . . . .	12 %	12 %	13.5%	4%
France . . . . .	9.6%	9.6%	12 %	11% + 3%
Italy . . . . .	3.2%	3.2%	4 %	3.3% + 0.5%
Luxembourg . . . . .	6.4%	6 %	8 %	10%
Netherlands . . . . .	6.4%	6 %	8 %	10%

**Subventions.** Whereas no amounts have become available in Germany up to now, in Belgium a premium of bfrs. 20,000.— per hectare of hop acreage has been granted to farmers on the basis of the acreage on May 15th, 1960. This subvention is to be paid out of the Agricultural Fund and corresponds to about DM 40.— per cwt. of hops produced. In France a subvention for the export of hops of Nfrs. 75.— per cwt. has been decreed. This, however, had to be rescinded for exports to Belgium as a consequence of a Belgian protest.

Export of German Hops Crop 1960						
September 1st, 1960 — March 31st, 1961						
Country	lbs.	lbs.	Country	lbs.	lbs.	
Belgium-Luxembourg . . . . .	531,088	5,205,280	b. f. . . . .	100,530	8,060,457	
Denmark . . . . .	223,106		Kenya-Uganda . . . . .	4,409		
Finland . . . . .	127,646		Congo . . . . .	101,412		
France . . . . .	625,665		Lybia . . . . .	4,850		
Great Britain . . . . .	167,109		Morocco . . . . .	52,910		
Ireland . . . . .	17,637		Nigeria . . . . .	11,243		
Italy . . . . .	915,129		Port. East Africa . . . . .	17,637		
Malta . . . . .	7,716		Ruanda-Urundi . . . . .	11,023		
Netherlands . . . . .	488,980		Spanish Morocco . . . . .	13,228		
Norway . . . . .	158,070		Union of South Africa . . . . .	13,448		
Austria . . . . .	600,533		South West Africa . . . . .	4,850		
Portugal . . . . .	91,491		Tunisia . . . . .	8,818		
Spain . . . . .	312,612		Central Africa . . . . .	7,716		
Sweden . . . . .	439,156		<b>Africa . . . . .</b>			352,074
Switzerland . . . . .	499,342		Ceylon . . . . .	661		
<b>Europe . . . . .</b>			Formosa . . . . .	13,228		
Argentina . . . . .	59,524		Hongkong . . . . .	36,817		
Bolivia . . . . .	1,323		India . . . . .	661		
Brazil . . . . .	237,876		Indonesia . . . . .	61,729		
Brit. Guayana . . . . .	2,205		Iraq . . . . .	13,228		
Canada . . . . .	10,582	Iran . . . . .	8,157			
Columbia . . . . .	111,332	Japan . . . . .	620,154			
Mexico . . . . .	18,739	Corea . . . . .	17,637			
Peru . . . . .	3,307	Lebanon . . . . .	10,141			
Uruguay . . . . .	19,841	Malayan States . . . . .	9,480			
U. S. A. . . . .	2,311,964	Pakistan . . . . .	661			
Venezuela . . . . .	71,870	Philippine Isl. . . . .	52,029			
West Indies . . . . .	6,614	Singapore . . . . .	50,706			
<b>America . . . . .</b>		Syria . . . . .	882			
Ethiopia . . . . .	25,794	Thailand . . . . .	55,115			
Angola . . . . .	12,125	Cyprus . . . . .	220			
Dahomey . . . . .	6,614	<b>Asia . . . . .</b>		951,506		
Ghana . . . . .	6,173	French Pacific Isl. . . . .	8,818			
Cameroon . . . . .	32,187	New Guinea . . . . .	2,205			
Canary Islands . . . . .	17,637	<b>Australia/Oceania . . . . .</b>		11,023		
c. f. . . . .	100,530	<b>Total . . . . .</b>			<b>9,375,060</b>	

**German Hop Imports Crop 1960**

The following lots of hops have been imported from September 1st, 1960, to March 31 st, 1961:

Belgium-Luxembourg . . . . .	144,842 lbs.	b. f. . . . .	2,008,170 lbs.
France . . . . .	476,635 lbs.	Czechoslovakia . . . . .	700,401 lbs.
Jugoslavia . . . . .	1,386,693 lbs.	U. S. A. . . . .	1,374,568 lbs.
c. f. . . . .	2,008,170 lbs.	Total . . . . .	4,083,139 lbs.

**Hop Acreage 1960**

Verification of the hop acreage in Germany in 1960 resulted in the following figures:

Districts	1939 Acreage acres	1960		
		Existing acreage acres	Additional acreage acres	Total acres
Hallertau . . . . .	11,317	14,047	297	14,344
Spalt . . . . .	2,276	2,177	81	2,258
Hersbruck . . . . .	2,118	1,356	20	1,376
Jura . . . . .	200	435	5	440
Tettngang *) . . . . .	—	30	—	30
Aischgrund/oth. distr.	200	17	—	17
<b>Bavaria . . . . .</b>	<b>16,111</b>	<b>18,062</b>	<b>403</b>	<b>18,465</b>
Württemberg/RHW. Tettngang **) . . . . .	1,223 1,636	374 1,764	2 27	376 1,791
Baden . . . . .	440	74	—	74
<b>Baden-Württemberg</b>	<b>3,299</b>	<b>2,212</b>	<b>29</b>	<b>2,241</b>
Pfalz . . . . .	151	57	5	62
<b>Rheinland-Pfalz . . . . .</b>	<b>151</b>	<b>57</b>	<b>5</b>	<b>62</b>
<b>Germany . . . . .</b>	<b>19,561</b>	<b>20,331</b>	<b>437</b>	<b>20,768</b>

\*) areas in Bavaria      \*\*) except areas in Bavaria

The above figures show a total decrease of 3.8% against 1959. The reductions of acreage within the various districts of production are as follows:

Hallertau . . . . .	2 %	Württemberg . . . . .	19%
Spalt . . . . .	5.4%	Tettngang . . . . .	6%
Hersbruck . . . . .	9.7%	Baden . . . . .	9%
Jura . . . . .	1 %	Pfalz . . . . .	30%

**Hop Acreage 1961**

As a result of the disappointing prices for hops both of crop 1959 and 1960, an additional number of hop yards was ploughed out in the spring of 1961. The extent of these measures is not yet known.

Reductions in acreage will be set off in part by the fact that bigger producers increase their plantings so as to utilize to full extent the capacity of existing picking machines.

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

For the import of hops crop 1960 from Western Germany an amount of DM 8,000,000.— had been made available according to publication No. A 5813.

It was to be expected that the D. D. R. would have an increased demand for hops owing to smaller home production. Only about 2,000 cwts. of hops crop 1960, however, were purchased from Western Germany. The bulk of the demand was covered by purchases from Czechoslovakia and Jugoslavia.

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

**Spring Work** started at the beginning of April and was finished around April 25th, 1960. It has to be taken into consideration that big producers proceeded to the uncovering and cutting of about one third of the hop yards already in the autumn of 1959 in order to alleviate the considerable demand of labour in the springtime. Hop yards developed normally and vines cut in the preceding autumn reached the height of the trellises around June 20th about one week earlier than the plants cut in the spring. First **Burrs** appeared in mid-July and the set promised a good crop. In July, however, and especially during August a very strong infestation of **Aphids** set in. Sprayings against this pest were effected from five to seven times but the result was unsatisfactory. The aphids could not be controlled with systemic sprayings because temperatures were lower than necessary for the insecticides to become effective. A total failure of the crop resulted in some parts and in the final result the infestation of aphids considerably influenced both quantity and quality of the crop. Precipitations and mean temperatures were as follows:

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Precipitations	85.4	11.8	39.5	42.8	64.0	23.9	38.9	79.2	40.7 mm
Temperatures	0.6	1.2	4.7	8.2	13.6	17.6	17.2	16.8	13.2 °C

In the district of Meissen, there were damages by **Hails** and **Storms**. **Picking** started on August 25th and was finished within three weeks. Work was hampered by rain and insufficient labour during the first ten days of the harvest. Later on the weather became favourable. There are 26 picking machines in operation.

**Quality** was not so good as the year before and was judged as follows: 0% grade I, 3.5% grade II, 43.3% grade III, 38.2% grade IV, 13.4% grade V and 1.6% offgrade. The prices paid to farmers ranged from DM 600.— to DM 1,000.— per 50 kilos (D-Mark-East).

The weather during 1960 was not quite favourable for the development of the hops. In the district of Lublin, the following precipitations and mean temperatures were registered:

Poland

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Precipitations	32.4	12.8	11.0	34.7	97.7	66.2	162.0	72.3	45.7 mm
Temperatures	—4.0	—3.5	1.3	6.6	13.0	17.5	17.3	14.2	9.7 °C

**Spring Work** started early and was finished in good time under favourable weather. Welcome rains in May and June 1960 benefited growth.

Conditions became unfavourable in July. Abundant rainfalls turned the hop yards waterlogged, so that working the yards became impossible. Local damages were effected by **Hails** and **Storms** which laid some hop yards low. Weather conditions resulted in a stronger infection of **Downy Mildew** which damaged the crop both in quantity and quality. The hops reached the height of the trellises by the end of June. **Bloom** started around July 20th. The **Harvest** began around August 20th and was finished about September 20th under occasionally rainy weather. Three picking machines are in operation.

The **Quality** of the hops was not so good as the year before and was judged as follows: 4.4% grade I, 93% grade II, 2.6% grade III.

The total acreage included about 10% new gardens = about 540 acres. The total crop was handled at official prices and went into consumption until December 31st, 1960.

The hops came well out of dormancy after a mild winter 1959/60. **Spring Work** was favoured by good weather conditions and finished about the end of April. Rainfalls were distributed as follows:

Czechoslovakia

	April	May	June	July	August	September
Saaz	21.5	70.7	39.3	57.7	43.8	15.2 mm
Auscha	39.0	38.0	75.0	79.0	129.0	43.0 mm

The hops developed well under generally favourable weather which was, however, cooler than normal on the average. The vines reached the height of the trellises by the end of June. The plants showed a healthy stand and formed a good overhang. **Pests** and **Diseases** were scarcely notable and could be controlled easily. Sprayings were effected up to six times.

The gardens were in **Full Bloom** by the middle of July. The weather in July and August was not quite favourable for the **Formation** of the **Cones** and the **Ripening** of the hops as a consequence of a lack of sunshine.

**Picking** started on August 20th and was finished about September 11th, 1960, under slightly rainy weather only during the first days. Available kilns had not sufficient capacity to accept the hops picked. More than sufficient pickers were available so that only 130 picking machines out of a total of 169 were in use. The mechanical harvest accounts for about 12% of the crop.

Saaz hops crop 1960 were graded as follows: 75% grade I, 25% grade II. The hops were not quite uniform in growth and size of cones and tended in part to shattering in consequence of excessive drying. The colour was green to lightgreen, somewhat on the yellowish side with occasional discolourations. The hops were clean picked and the light coloured lupulin had the wellknown fine aroma.

Extensions of acreage are under consideration in Czechoslovakia and it is intended, too, to increase the yield per unit of acreage. These measures might lead to a considerable increase of production during the coming years.

**SLOVAKIA.** Informations from trading papers inform that in this part of the country trial plantings of hops are under way since 1959. The new hop gardens totalling about 100 acres in 1960, are situated in the valleys of the rivers Waag, Neutra and Bodrog.

The **Quality** of the hops from Slovakia suffers from the fact that green hops have to be transported about 100 km to the kilns.

In the **SANNTAL (SLOVENIA)** there was a lack of moisture as a consequence of little snowfall during the winter of 1959/60. The plants wintered well despite a cold spell in January 1960. Precipitations and mean temperatures were as follows:

Jugoslavia

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Precipitations	35.7	89.6	93.8	82.4	43.4	131.0	103.8	114.9	158.9 mm
Temperatures	—0.73	1.73	5.10	9.90	14.30	18.90	18.03	19.10	13.57 °C

Warm and sunny weather with sufficient rainfalls during growth favoured the development of the hops. About six sprayings were effected against **Pests** and **Diseases** which were scarcely in evidence. The vines reached the height of the trellises by the end of June and showed a good overhang as well as strong laterals. **Bloom** started normally between July 15th and 20th. The **Set** was especially abundant. **Picking** started on August 18th and was finished until the beginning of September under sunny and very warm weather. There was no lack of labour.

Styrian hops crop 1960 had uniform and well sized cones of generally light green colour with ample lupulin of light colour and good aroma. The hops showed some **Wind Whipping**. Picking and drying of the hops was good. The crop was graded as follows: 84% grade I and II, 11% grade III, 5% grade IV. A small part of the crop remained unpicked for reasons of quality. All hops were handled until January 1st, 1961, at the following prices:

Grade I Dinar 19,000.— per cwt. (DM 260.— per cwt.)  
 Grade II Dinar 18,500.— per cwt. (DM 247.— per cwt.)  
 Grade III Dinar 13,500.— per cwt. (DM 180.— per cwt.)  
 Grade IV Dinar 5,000.— per cwt. (DM 67.— per cwt.)

All hops available for export had been sold out already on September 1st, 1960.

**BACKA.** In this district the hops had ideal growing conditions in 1960. Rainfalls and mean temperatures were as follows:

	March	April	May	June	July	August	Sept.
Rainfalls	15.6	38.9	67.6	28.0	58.7	36.8	51.1 mm
Temperatures	6.6	11.4	15.1	19.6	19.8	20.9	15.3 °C

The plants reached the height of the trellises at the beginning of June. **Bloom** started in mid-July. The vines had formed a strong overhang and cones on the lower third of the plants ripened well. The acreage of about 3,600 acres was unchanged against the year before but did not include new gardens so that yields per acre showed an increase.

**Picking** set in on August 22nd and was finished under good weather conditions on September 5th. There was no lack of labour.

The **Quality** of the hops was much better than the year before as shown by the grading: 84.16% grade I and II, 10.61% grade III, 5.23% grade IV. Farmers received average prices for their hops which were sold out until the end of 1960.

The following figures are available regarding the **Export** of hops from Jugoslavia for the time from August 1st, 1960, to February 28th, 1961:

Country	lbs.	Country	lbs.
U. S. A. . . . .	2,680,794	b. f. . . . .	9,856,766
USSR. . . . .	2,667,566	France . . . . .	205,028
Germany West . . . .	1,441,808	Switzerland . . . . .	180,777
Great Britain . . . .	923,727	Austria . . . . .	176,368
Germany East . . . .	524,695	Denmark . . . . .	138,890
Belgium . . . . .	379,191	Algiers . . . . .	121,253
Netherlands . . . . .	354,941	Morocco . . . . .	66,138
Hungary . . . . .	330,690	Sweden . . . . .	15,432
Brazil . . . . .	295,416	Italy . . . . .	13,228
Czechoslovakia . . . .	257,938	Others . . . . .	194,005
c. f. . . . .	<u>9,856,766</u>	Total . . . . .	<u>10,967,885</u>

## Hungary

The vegetative development of the hops crop 1960 went on under favourable weather conditions. Precipitation totalled 333 mm from March 1st until September 30th, 1960. Average temperatures were as follows:

March	April	May	June	July	August	September
6.6	11.7	15.9	21.0	20.5	21.6	16.0 °C

About six preventive sprayings were effected against **Pests** and **Diseases**. The hops reached the height of the trellises at the beginning of June and were in **Bloom** about mid-June. The **Harvest** started on July 28th and was finished on September 16th, 1960, under dry and warm weather. There were sufficient pickers available.

The hops of crop 1960 were better in colour and cones than the year before. The **Quality** was graded as follows: 13% grade I, 37% grade II, 34% grade III, 13% grade IV and 3% grade V. Individual farmers take no part in the production of hops. The entire crop is handled centrally at an average price of Ft. 3,600.— corresponding to DM 1,200.— per 50 kilos at the official rate of DM 1.— = Ft. 3.—.

Experimental plantings of hops in this country led to an increased acreage until 1958. Hops are produced in the following districts:

Bulgaria

Prissowpo . . . . .	105 acres
Aprilowo . . . . .	94 acres
Bjal Brjag . . . . .	92 acres
Sawet . . . . .	104 acres
Total . . . . .	<u>395 acres</u>

Present informations indicate that an additional acreage of about 990 acres has been planted to hops in 1959. It is intended to reach a total acreage of about 3,000 acres until 1962. New plantings are found especially in the district of Samokovu to the South-East of Sofia. Posts of re-inforced concrete are used for the construction of trellises to alleviate the scarcity of timber. Kilns with four stages have been constructed.

In the district of **ALOST** the hops came well through the mild winter 1959/60. Scant precipitations until the end of June were followed by superabundant rainfalls starting in July. Total precipitations from April to September 1960 were 493.4 mm.

Belgium

The weather in 1960 was not quite favourable for the development of the plants. Temperatures were low and rarely reached more than 20° C. Excessive rainfalls especially in August and September did not benefit the vegetative development and did not favour the **Formation** of the **Cones** and the **Ripening** of the hops. Up to twelve sprayings were effected against **Pests** and **Diseases** but the crop suffered damage from **Downy Mildew**.

The hops reached the height of the trellises at the beginning of July and showed a good overhang. **Bloom** started by the end of July.

The **Harvest** set in at the beginning of September and was finished around September 25th. There was a notable lack of pickers despite the fact that already about 40% of the hops are harvested mechanically. 20 machines are in operation. The weather during picking was rainy so that the harvest was protracted for a longer time than usual.

The **Quality** of the hops was not quite so good as the year before. The cones were not fully developed and of yellowish colour. The crop was graded as follows: 20% grade I, 60% grade II, 20% offgrade.

At the end of September 1960 prices stood at bfrs. 2,500.—/3,000.— and receded slowly until the beginning of October to bfrs. 2,500.—/2,800.—. Lack of demand made for a further decrease. Quotations were bfrs. 2,000.—/2,300.— in mid-October, bfrs. 1,700.—/1,800.— by the end of October and stood at bfrs. 1,300.—/1,500.— at the end of November 1960. Trading was slow. It is estimated that about 2,000 cwts. of hops remained unsold on farms in March 1961.

**POPERINGHE.** Following a mild winter 1959/60, **Spring Work** was done under favourable weather conditions in February and March. Climatological conditions were favourable for the hops in the beginning but cool and dry weather in April hampered growth. Dry and sunny weather in May as well as rainfalls in June benefited the plants so that the stand of the crop at the beginning of July was advanced by about one week against normal. From that time on, however, hop yards suffered from lack of sunshine and excess of rains. The vines reached the height of the trellises by the end of June/beginning of July. **Bloom** started during the first half of July and was general at the end of July. The **Set** was abundant but the **Formation** of the **Cones** suffered under adverse weather conditions.

About 20 sprayings against **Pests** and **Diseases** were effected. **Picking** started by the end of August/beginning of September and was generally finished around September 17th. The weather during harvest was not good at the start but became more favourable later on. Only about one third of the acreage is picked by hand. About 60 picking machines are in operation.

The cones were not fully sized and not quite ripened and had often a somewhat dull colour. The **Quality** was graded as follows: 50% grade I, 35% grade II, 15% grade III.

Quotations for Replant Hailertau were bfrs. 2,500.— in mid-September, rose for a short time to bfrs. 2,700.—/2,800.—, to fall to bfrs. 2,000.— in mid-October and to reach bfrs. 1,600.— at the beginning of November. Prices for higher quoted varieties developed in a similar way. Northern Brewer were quoted at bfrs. 3,500.— until the beginning of October and went down to bfrs. 3,000.— in mid-October and bfrs. 2,800.— by the beginning of November. About 5,000 cwts. of unsold hops remained on farms in Poperinghe in March 1961.

The disappointing development of sales for Belgian hops resulted in a premium of bfrs. 20,000.— per hectare of hop acreage (about DM 40.— per cwt.) by the Government of Belgium which was distributed according to the acreage on May 15th, 1960.

Export of Belgian hops from September 1st, 1960, until January 31st, 1961, are shown as follows:

	lbs.		lbs.
Germany West . . . . .	30,644	b. f. . . . .	237,215
Angola . . . . .	2,205	Norway . . . . .	3,307
Australia . . . . .	23,810	Netherlands . . . . .	4,409
Austria . . . . .	11,684	Portugal . . . . .	15,432
Congo . . . . .	11,243	Great Britain . . . . .	59,083
Denmark . . . . .	38,360	Ruanda-Urundi . . . . .	8,818
U. S. A. . . . .	17,637	Sweden . . . . .	6,614
Finland . . . . .	18,298	Switzerland . . . . .	10,582
India . . . . .	1,323	Czechoslovakia . . . . .	4,189
Ireland . . . . .	81,791	Jugoslavia . . . . .	22,046
Italy . . . . .	220	Total . . . . .	371,695
c. f. . . . .	237,215		

Belgium imported the following quantities of hops crop 1960 from September 1st, 1960, until January 31st, 1961:

	lbs.		lbs.
Germany West . . . . .	349,650	b. f. . . . .	588,409
U. S. A. . . . .	158,952	Great Britain . . . . .	42,549
France . . . . .	67,020	Czechoslovakia . . . . .	652,562
Poland . . . . .	12,787	Jugoslavia . . . . .	252,647
c. f. . . . .	588,409	Total . . . . .	1,536,167

## France

Precipitations in France were distributed as follows:

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Alsace	44.9	73.4	33.4	22.8	69.5	85.8	70.2	111.8	26.7 mm
North	56.0	25.0	38.0	16.0	51.0	60.0	49.0	101.0	56.0 mm

In the **ALSACE** the hops came well through the mild winter 1959/60. **Spring Work** was finished in good time under warm and relatively dry weather. The vines developed slowly in April because of dry weather conditions but were able to make good in May and June under ample rainfalls. At the beginning of July unfavourable and quickly changing weather started which did not benefit the hops. The vines reached the height of the trellises about July 10th but did not develop an especially good overhang. The hops were in **Full Bloom** at the end of July. The **Formation** of the **Cones** as well as the **Ripening** of the hops benefited from warm and sunny weather about the end of August. **Picking** started during the first days of September and was finished under good and dry weather. About 80 picking machines are in operation but there was a lack of labour for hop yards where the harvest is still manual. Picking is accelerated by machines but experiences show that existing kilns are overtaxed by the quantity of green hops arriving. The green hops had to remain longer than normal in bags which led to discolourations and losses in quality.

**Quality.** The Alsace hops of crop 1960 were not of uniform size and of yellowish green to green but not uniform colour. Light lupulin of good aroma was present. The hops were graded as follows: 94% grade I and II, 4% grade III, 2% grade IV. The Alsace hops crop 1960 were sold within a price bracket from Nfrs. 150.— to Nfrs. 250.—. Stocks on farms were sold out by the end of October but unsold inventories remained in hands of the trade as well as of the cooperative. A premium of Nfrs. 75.— per cwt. could only partially stimulate the sale of excess hops abroad.

**FLANDRES.** The hops came well out of dormancy. **Uncovering** and **Cutting** was finished in good time under favourable weather. Up to 15 sprayings against **Pests** and **Diseases** were effected. The weather was relatively favourable until June but turned to changeable and rainy at the beginning of July. The plants reached the height of the trellises by the end of June. **Bloom** started at the beginning of July and was plentiful. During August, however, **Downy Mildew** appeared to some extent so that part of the hops became discoloured. About 5% of the harvest remained unpicked for reason of quality. The **Harvest** started on September 3rd and was finished on September 23rd. The weather during picking was changeable and turned to rainy towards the end of the harvest. 14 picking machines are in operation which handle about 50% of the crop.

The **Quality** of the hops was not up to the crop of 1959. The cones were not always fully ripened. The colour was yellowish on the average and there were discolourations. The bitter value was lower than normal. The crop was graded as follows: 25% grade I, 45% grade II, 25% grade III, 5% abandoned as offgrade.



A few lots were sold in October at Nfrs. 250.—. Prices decreased to Nfrs. 180.— in November, stood at Nfrs. 150.— in January 1961 and reached a low point Nfrs. 100.— at the beginning of March. Special varieties, such as Northern Brewer and others, were in better demand. Prices for these hops were Nfrs. 300.— at the start of the harvest and rose for last remaining lots to Nfrs. 340.—. About one third of the crop remained unsold on farms in May 1961.

French hop imports for the calendar year 1960 were as follows:

Countries	Jan.—June lbs.	July-Dec. lbs.	1960 Total lbs.
Belgium-Luxembourg . . . . .	33,289	—	33,289
Germany West . . . . .	43,210	222,003	265,213
Great Britain . . . . .	5,512	—	5,512
Jugoslavia . . . . .	219,799	170,857	390,656
Czechoslovakia . . . . .	371,255	93,916	465,171
Total . . . . .	673,065	486,776	1,159,841

Exports of French hops in 1960 were as follows:

Destination	Jan.—June lbs.	July-Dec. lbs.	1960 Total lbs.
Algiers . . . . .	139,772	61,067	200,839
Belgium-Luxembourg . . . . .	180,116	111,994	292,110
Denmark . . . . .	31,085	145,724	176,809
Dahomey . . . . .	—	4,409	4,409
Germany West . . . . .	434,527	558,866	993,393
Germany East . . . . .	220,460	—	220,460
Ivory Coast . . . . .	—	8,818	8,818
Great Britain . . . . .	12,346	13,669	26,015
Cameroons . . . . .	45,194	—	45,194
New Caledonia . . . . .	1,984	1,984	3,968
Netherlands . . . . .	441	11,243	11,684
Norway . . . . .	2,425	—	2,425
Austria . . . . .	22,046	—	22,046
Switzerland . . . . .	—	50,265	50,265
Spain . . . . .	117,946	—	117,946
Czechoslovakia . . . . .	46,297	—	46,297
Turkey . . . . .	154,322	—	154,322
Vietnam . . . . .	255,734	—	255,734
Other Countries . . . . .	3,748	2,205	5,953
Total . . . . .	1,668,443	970,244	2,638,687

**Austria**

In the district of **MUEHLVIERTEL** sufficient subsoil moisture accumulated during the mild winter 1959/60. **Spring Work** was finished by mid-April. The hops had been off to a good start and experienced only a passing delay of growth by cool and dry weather at the beginning of May. Development continued satisfactory under warm weather in May and June with sufficient rainfalls. Some hop yards suffered partially severe damage by **Hails** in June 1960.

The weather during July was very rainy and cool. **Downy Mildew** had to be carefully controlled although the waterlogged gardens hampered the work. Up to twelve sprayings were effected. The hops reached the height of the trellises by the end of June but did not show such a good overhang as the year before. **Bloom** started during the second half of July and the hops had a good development until the harvest.

**Picking** started on August 25th and was finished under good weather conditions in mid-September. There are no picking machines in operation but there was generally no lack of labour.

The **Quality** of the hops was judged better than the year before. The crop was graded as follows: 71% grade I, 25% grade II, 4% grade III. A crop of 127,000 lbs. was harvested on an acreage of 121 acres (1,050 lbs. per acre). The entire harvest was taken over by sponsoring breweries in Austria at an average price of ö. S. 2,475.— per cwt. (DM 380.— per 50 kilos).

In the district of **LEUTSCHACH** the hops grew well under somewhat changeable but good weather. There was only a cold spell in May 1960. **Pests** and **Diseases** were controlled by eight sprayings on the average. The hops reached the height of the trellises during the last decade of June but had only a scant overhang. Most of the gardens were in **Full Bloom** in mid-July. **Picking** started on August 22nd and was finished on September 8th under good weather conditions. There was no lack of labour.

The **Quality** of crop 1960 was judged better than in 1959 and the hops were graded as follows: 61% grade I, 27% grade II, 12% grade III. All hops were taken over by sponsoring breweries and prices to farmers were as follows:

Grade I ö. S. 2,000.— per cwt. (DM 308.— per cwt.)  
 Grade II ö. S. 1,900.— per cwt. (DM 292.— per cwt.)  
 Grade III ö. S. 1,800.— per cwt. (DM 277.— per cwt.)

Occasional lots of especially high quality were priced at ö. S. 2,100.— per cwt. (DM 323.— per 50 kilos).

### Switzerland

The weather in 1960 was favourable from March to May. Abundant rainfalls started in June but hops showed a good and luxuriant growth as a consequence of sufficient moisture. Rainfalls were distributed as follows:

Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
47	60	23	48	61	122	90	134	65	90	74	40 mm

The vines reached the height of the trellises by the end of June and formed a luxuriant overhang. **Bloom** started on July 10th. **Red Spider** as well as **Aphids** were noted locally during the month of August but did no damage as a result of up to ten preventive sprayings. The **Harvest** went on from August 20th to September 10th. About 80% of the crop are handled by one machine in operation and there was no scarcity of pickers for other hop yards. The hops were of good quality and were entirely grade I with the exception of one small lot which had deteriorated by unskilful storage after harvest. A crop of 32,000 lbs. was produced on 21 acres (1,525 lbs. per acre). The entire harvest was taken over by sponsoring breweries during the month of September 1960. The price to farmers was sfrs. 460.— and included an allowance of sfrs. 30.— per cwt. paid by the Compensation Fund.

### Spain

With the exception of scant precipitations, the weather in 1960 was favourable for the hops. **Pests** appeared only in a limited way and were easily controlled. The acreage has been increased in 1960 and amounts now to 2,076 acres. The following quantities have been harvested in the four districts of production:

Galicia . . . . .	2,183 cwts.
León . . . . .	4,958 cwts.
Asturias . . . . .	816 cwts.
Vasco-Navarra . . . . .	51 cwts.
	<u>8,008 cwts.</u>

The total crop is greater than in former years as a result of increased acreage. The yield of 425 lbs. per acre is notably lower than in former years. This figure, however, is influenced by the fact that the area comprises a considerable acreage of new gardens.

The **Quality** of crop 1960 was judged better than in 1959 especially in the district of León but in Asturias as well. The crop was graded as follows: 74.8% grade I and II, 24.4% grade III, 0.8% grade IV. The total crop is consumed by the Spanish breweries.

### England

The hops wintered well in 1959/60 and had a good growth under favourable weather conditions until June 1960. Especially hot weather at the end of May/beginning of June was favourable for the hops as subsoil moisture was plentiful. Excessive rainfalls in July and August contributed to an abundant harvest. The quota of production for crop 1960 which was indicated originally at 92.5% was increased later on to 94.5%. The harvest was greater than necessary for the percentage of the quota. For this reason, part of the hops remained unpicked. The abandoned acreage is estimated at about 5% of the total. Demand for crop 1960 had been registered as follows:

Home consumption crop 1960 . . . . .	204,518 cwts.
Export crop 1960 . . . . .	506 cwts.
Later registrations . . . . .	<u>5,000 cwts.</u>
Total . . . . .	<u>210,024 cwts.</u>

**Picking** started on August 28th and was finished within four weeks. About 68% of the crop are harvested mechanically. The weather during picking was sometimes rainy.

The **Quality** was better than expected despite the wet weather during growth. The cones were uniformly sized and of green colour. The crop was graded as follows: 15% grade I, 80% grade II, 5% grade III.

All contracts were delivered in full. About 3% more hops than expected were delivered to the Hop Marketing Board. The average price to farmers was fixed at £ 31.10.— (DM 350.— per 50 kilos) and was a little under the price of 1959. There remained no unsold lots of hops.

## Exports of English Hops Crop 1960

September 1st, 1960 — March 31st, 1961

Country	cwts.	Country	cwts.
Australia . . . . .	54	b. f. . . . .	13,941
Belgium . . . . .	1,143	Malayan States . . . . .	225
Brit. Honduras . . . . .	5	Malta . . . . .	1
Ceylon . . . . .	163	Mauritius . . . . .	1
Fiji Islands . . . . .	18	Netherlands . . . . .	20
Finland . . . . .	10	Nigeria . . . . .	42
Ghana . . . . .	8	Pakistan . . . . .	13
Hongkong . . . . .	20	Pacif.-Islands . . . . .	6
India . . . . .	4	Singapore . . . . .	482
Iraq . . . . .	82	Sweden . . . . .	23
Ireland . . . . .	12,426	Total . . . . .	14,754
Jamaica . . . . .	8		
c. f. . . . .	13,941	1 cwt = 50.8 kilos	

The following quantities of hops crop 1960 were imported from September 1st, 1960, to March 31st, 1961:

Country	cwts.	Country	cwts.
Germany West . . . . .	2,001	b. f. . . . .	8,241
Belgium . . . . .	716	Czechoslovakia . . . . .	296
U. S. A. . . . .	278	Other Countries . . . . .	86
Netherlands . . . . .	12	Total . . . . .	8,623
Jugoslavia . . . . .	5,234		
c. f. . . . .	8,241	1 cwt = 50.8 kilos	

U. S. A.

**CALIFORNIA.** In the district of **SACRAMENTO** the development of the hops was retarded by exceptionally dry weather in 1960. Rainfalls were as follows:

Jan.	Febr.	March	April	May	June	July	August	September
3.25	2.91	1.62	—	0.41	—	—	0.06	— inch.

Temperatures during growth were cool on the average. **Downy Mildew** appeared in some hop yards and was controlled by sprayings. The hops reached the height of the trellises in mid-June and were in **Bloom** by the end of June. Generally the vines had a good overhang but part of the hop yards remained pointed as a consequence of weather conditions. **Picking** started around August 10th and was finished under dry and warm weather conditions. The hops of crop 1960 were about the same in quality as the year before and were judged as follows: 75% grade I, 20% grade II, 5% grade III.

**WESTERN OREGON.** The hops had wintered well. April and May 1960 were more humid than usual. Precipitations were as follows:

Jan.	Febr.	March	April	May	June	July	August	September
4.41	5.41	6.99	3.50	3.59	0.47	—	0.65	0.65 inch.

The hops were off to a slower start than normal and showed a somewhat stronger infection of **Downy Mildew**. Later on, climatic conditions were normal for growth. **Aphids** and **Red Spider** appeared to a more limited extent than usual and were controlled by one spraying only. In contrast, sprayings against **Downy Mildew** had to be effected from six to eight times.

The hops reached the height of the trellises during the second week of June and were in **Bloom** by mid-July. The vines showed a good development and had a good overhang but bloom was not so abundant as in former years. **Picking** of Fuggles hops started during the second half of August and was interrupted only once by rain. Other varieties were harvested between September 5th and September 25th under good weather conditions. There was no lack of labour.

The **Quality** of Fuggles hops was somewhat better than normal whereas Clusters were judged not quite so good as in 1959. The crop was graded as follows: 55% grade I, 30% grade II, 15% grade III.

**EASTERN OREGON AND IDAHO.** The hops had a good development under normal spring weather. Temperatures fell by mid-May and **Frost Damages** appeared from June 5th to June 10th. It was necessary in part to train new vines. Precipitations were as follows:

Jan.	Febr.	March	April	May	June	July	August	September
1.33	1.74	1.39	0.43	0.12	0.01	0.95	0.83	0.29 inch.

Strong **Winds** and cool weather prevailed until the second half of June. The weather turned warmer and was favourable for growth until mid-August. Up to four sprayings were effected against **Downy Mildew** as well as against **Aphids** and **Red Spider**. The hops reached the height of the trellises around June 25th. **Burrs** started on early varieties already about this time despite the fact that the vines were not yet fully grown. **Bloom** started on late varieties about July 10th. These hops had formed a good overhang.

**Picking** started about August 20th. At the same time a passing cooler spell appeared but there were no frost damages. Further on the weather was good for the harvest which terminated about September 25th.

The hops of crop 1960 were hampered in development by cool weather during spring-time and in August and had not the usual good content of lupulin. Cones remained somewhat small and were not always fully ripened. The colour of the cones was good on the average with occasional **Wind Whipping**. The **Quality** was graded as follows: 55% grade I, 30% grade II, 15% grade III.

**WASHINGTON.** In the district of **YAKIMA** the hops grew well under normal climatic conditions in 1960. The winter was mild and brought little precipitation. Cool weather during spring retarded growth by two to three weeks so that the aspect of the crop was not very favourable about the beginning of June. Rainfalls were as follows:

Jan.	Febr.	March	April	May	June	July	August	September
0.89	1.43	0.65	0.54	0.87	0.19	0.05	0.25	0.11 inch.

Temperatures rose at the beginning of June and hop yards had a favourable development. It was necessary to carefully control **Red Spider**. The hop yards had a good aspect with normally developed vines in July. The set of **Burrs** was uniform from the top of the vines down. High **Winds** in August occasioned damages. The crop was abandoned on an area of about 150 acres where hop yards had broken down.

The hops reached the height of the trellises in mid-June. Early varieties bloomed about this time whereas late varieties were in **Full Bloom** about mid-July. **Picking** started on August 25th and was finished on September 22nd under dry and warm weather with occasionally strong winds.

The hops of crop 1960 had good sized cones of uniform green colour. The hops, however, were not so good in lupulin than the year before and contents of alpha acids especially were low. The crop was judged as follows: 40% grade I, 30% grade II, 30% grade III.

#### Hop Market U. S. A.

Demand for hops crop 1960 not under contract was slack as a consequence of stagnating beer sales in North America as well as Central and South America. Most breweries had ample inventories of hops and accepted only deliveries under contract. Available hops crop 1960 increased as existing contracts were transferred to the following years. Despite the fact that exports were higher, it was practically impossible to sell additional quantities. Quotations for hops crop 1960 set in on a basis of 20 c + 5 c premiums. Some activity on the market was noted for a short time in November. Prices, however, decreased during the course of the season until 15 c without premium (DM 66.— per 50 kilos). There was practically no demand even on the basis of such entirely unsatisfactory prices. Unsold hops on farms were estimated at about 15,000 cwts. in April 1961.

#### Hop Acreage U. S. A.

A considerable reduction of acreage is to be expected as far as farmers have no contracts for their hops. Reliable estimates about the decrease of the hop area in the U. S. A. are not yet available. Interim estimates indicate that the acreage 1961 will be about 5,000 to 6,000 acres smaller than in 1960.

#### Marketing Agreement U. S. A.

In the U. S. A. a marketing agreement had been in existence but did not produce expected results. By a general vote, the majority of producers decided against a continuation of that agreement which, therefore, ceased to function on June 30th, 1953. Present market conditions have once again led to efforts for a marketing agreement. Extensive projects have been drawn up which are under consideration by the Ministry of Agriculture in the U. S. A. It is not yet clear whether farmers would give the necessary agreement to such a marketing scheme. Even with such an agreement by farmers the marketing scheme could not become effective before crop 1962. The low level of prices during the last years has had a marked effect upon the financial situation especially of smaller producers.

Exports of US-Hops Crop 1960					
September 1st, 1960 — February 28th, 1961					
Country	lbs.	Ztr. je 50 kilos	Country	lbs.	Ztr. je 50 kilos
Ethiopia . . . . .	11,023	100	b. f. . . . .	8,961,655	81,300
Angola . . . . .	11,225	102	Israel . . . . .	50,701	460
Argentina . . . . .	36,380	330	Italy . . . . .	44,781	406
Belgium-Luxembourg	182,185	1,653	Jamaica . . . . .	40,545	368
Congo Republic . .	55,025	499	Japan . . . . .	71,909	652
Bolivia . . . . .	31,282	284	Corea . . . . .	13,402	122
Brazil . . . . .	1,089,759	9,886	Malaya . . . . .	8,245	75
Canada . . . . .	2,066,952	18,751	Mexico . . . . .	2,453,100	22,254
Ceylon . . . . .	19,750	179	Nicaragua . . . . .	11,023	100
Chile . . . . .	299,876	2,720	Netherlands . . . . .	209,984	1,905
Colombia . . . . .	1,713,165	15,542	Norway . . . . .	23,760	216
Costa Rica . . . . .	30,982	281	Austria . . . . .	132,387	1,201
Cuba . . . . .	88,000	798	Pakistan . . . . .	1,973	18
Denmark . . . . .	450,698	4,089	Panama . . . . .	60,893	552
Germany West . . .	1,643,263	14,908	Peru . . . . .	248,448	2,254
Dominican Republic	11,270	102	Philippine Isl. . . .	321,000	2,912
Ecuador . . . . .	167,727	1,522	Portugal . . . . .	28,663	260
Finland . . . . .	9,116	83	El Salvador . . . . .	53,460	485
Formosa . . . . .	33,069	300	Union of South Africa	128,447	1,165
Greece . . . . .	66,139	600	Sweden . . . . .	84,070	763
Great Britain . . .	38,379	348	Switzerland . . . . .	225,332	2,044
Guatemala . . . . .	12,431	113	Trinidad . . . . .	15,643	142
Honduras . . . . .	49,889	453	Uruguay . . . . .	89,207	809
Hongkong . . . . .	14,520	132	Venezuela . . . . .	472,882	4,290
India . . . . .	2,550	23	Vietnam . . . . .	66,138	600
Indonesia . . . . .	11,023	100	Other Countries . . .	30,193	274
Ireland . . . . .	815,977	7,402	Total . . . . .	13,847,841	125,627
c. f. . . . .	8,961,655	81,300			
			110.23 lbs. = 1 Ztr. zu 50 kilos		

Hop Imports U.S.A. Crop 1960		
September 1st, 1960 — February 28th, 1961		
Country	lbs.	Ztr. je 50 kg
Germany West . . . . .	810,518	7,353
Jugoslavia . . . . .	901,965	8,183
Total . . . . .	1,712,483	15,536
(1959: 2,812,298 lbs.)		

In the district of NAGANO the weather in 1960 was not favourable for the development of hops.

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Precipitations	105.9	61.3	59.9	37.1	104.9	66.1	168.7	94.6	57.9 mm
Temperatures	1.3	2.3	6.2	10.7	17.9	21.2	25.6	27.3	22.4 °C

Low temperatures in April and May together with extensive precipitations retarded growth. Damages by **Downy Mildew** appeared to a greater extent than usual despite careful control by up to ten sprayings. The hops reached the height of the trellises around June 20th. The weather had become dry in the meantime and temperatures were higher which was not so good for **Bloom** which started about July 5th. The **Formation** of the **Cones** and the **Ripening** of the hops especially on the lower third of the vines was hampered by lack of sunshine. On the average, the vines had a good overhang. **Picking** started on August 3rd and was finished on August 25th. The weather during the harvest was good despite occasional rainfalls in mid-August. There were not always sufficient pickers available.

The hops of crop 1960 had smaller sized cones than usual as a consequence of dry weather during the formation. The hops corresponded in colour and contents of lupulin to last year's quality.

In the district of HOKKAIDO, too, growing conditions for hops were not favourable in 1960.

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.
Precipitations	111.0	59.4	66.2	121.9	64.3	88.5	86.1	63.3	128.9 mm
Temperatures	-6.2	-3.2	-0.4	5.2	10.9	15.3	19.9	23.1	18.0 °C

Lower temperatures and dry weather in May and June retarded growth. Later on during the season the weather became warmer but there were not sufficient rainfalls. **Downy Mildew** as well as **Red Spider** were controlled by twelve sprayings. The hops reached the height of the trellises during the first decade of July. **Bloom** started during the second decade of July and was not so plentiful as usual for reason of climatic conditions as well as high **Winds**. **Picking** started on August 15th and was finished on September 7th. The weather was rainy during harvest until the last week of picking. There were not always sufficient pickers available.

The hops crop 1960 in the district of Hokkaido were of good quality on the average but contents of lupulin were somewhat smaller than the year before.

The Japanese hops of crop 1960 were graded as follows: 85% grade I, 8.2% grade II 6.8% grade III. About 10% of the hops are harvested mechanically with machines of home construction.

All hops are grown for sponsoring breweries and were accepted by same. The average price was Yen 21,720.— per 50 kilos (DM 240.— per 50 kilos).

#### Corea

Informations from trade papers show that the production of hops in the Northern part of Corea is on the increase. About 740 cwts. of hops were harvested in 1958 whereas the crop 1959 amounted to about 2,200 cwts. Yields in 1960 receded to about 1,800 cwts. The hop acreage is indicated at about 1,235 acres so that yield in 1960 would be only about 160 lbs. per acre. Home consumption of hops in Corea amounts to about 600 cwts. It is said that excess production has been exported to Russia, Czechoslovakia, Roumania and the D. D. R.

#### Australia

In the district of **VICTORIA** rainfalls during the season 1959/60 were as follows:

1959					1960		
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
3.79	3.19	3.11	1.33	1.98	3.61	1.52	1.41 inches

The hops developed well under good weather conditions and benefited especially by heavy rainfalls in January 1960 under higher temperatures than normal. The harvest which was picked in March 1960 brought 6,350 cwts. on an area of 450 acres (1,555 lbs. per acre).

#### Tasmania

Precipitations in Tasmania were distributed as follows:

1959					1960		
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
1.79	1.72	1.17	0.84	3.47	2.06	1.11	0.43 inches

The hops grew under favourable temperatures during the summer 1959/60 but the rather dry weather as well as strong **Winds** hampered the vegetative development. Sprayings against **Pests** and **Diseases** are generally not necessary but **Red Spider** had to be controlled in some instances. **Verticillium Wilt** was observed in some hop yards. The plants reached the height of the trellises in mid-November but the vines remained pointed especially in hop yards with early varieties. Early hops were in **Bloom** during the second half of December 1959. **Picking** started on February 19th and was finished under good weather conditions on March 24th, 1960. One picking machine handles about 7% of the harvest. The entire crop went into consumption. The price to farmers was sh 6/- per lb. (DM 370.— per 50 kilos) dry basis and was unchanged against the year before.

#### New Zealand

The hops had good growing conditions during the season 1959/60. Rainfalls were as follows:

1959					1960		
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
3.96	6.57	1.98	1.38	2.44	0.76	5.49	3.79 inches

The hops grew almost too forcefully under warm weather in November whereas the formation of laterals was retarded by lack of sunshine. Beginning in mid-December, however, weather conditions for the vegetative development of the hops were excellent until harvest time. The hops reached the height of the trellises during the second half of December 1959. **Burrs** showed at the beginning of January 1960. The plants had developed a luxuriant overhang. **Picking** started at the end of February and was finished under good weather conditions by the end of March 1960. Four picking machines are in operation but about 90/95% of the crop are still harvested manually.

The hops of crop 1960 were of average size and average content of lupulin. The **Quality** was judged as follows: 97% grade I and II, 3% grade III.

# Crop 1961

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

As a consequence of dry weather and cold winds later in the season the harvest was smaller than the year before. The crop is tentatively estimated at only 2,700 cwts. A basic price to farmers of Pesos 140.— per kilo was fixed and corresponds to about DM 340.— per 50 kilos. No data are available up to now regarding the purchases of the Argentine crop by the home brewing industry.

Argentina

The development of the hop plant was retarded by cold weather in October 1960. **Root Rot** by fusarium occasioned considerable damage on young plants. Rainfalls were distributed as follows:

Union of  
South Africa

1960					1961		
Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Febr.	March
0.50	4.31	0.66	1.73	3.39	1.97	2.64	4.03 inches

The hops reached the height of the trellises around December 20th. A considerable infestation of **Caterpillars** which occasioned damages had to be controlled in December. The vines remained pointed. The hops were in bloom in January 1961. Picking started on February 10th and was finished on March 10th under generally favourable weather conditions.

The hops of crop 1961 were of good colour. The cones were smaller than normal but well formed and showed a higher content of lupulin than in 1960. The **Quality** was judged as follows: 40% grade I, 50% grade II, 10% grade III. A crop of 1,908 cwts. was produced on a total area of 272 acres.

The hops came well through the mild winter 1960/61. Field work benefited by favourable weather conditions already since February 1961.

Growth 1961  
in Germany

**HALLERTAU.** In this district especially the more important producers have changed to **Uncovering** and **Cutting** already in the autumn in order to lighten the work load in the spring-time. **Spring Work** started under favourable weather early in March 1961. Conditions favoured the growth of the hops in April, too, whereas cold and rainy weather in May and during the first half of June hampered the development. Up to six sprayings had been effected against **Downy Mildew** but measures became ineffective in part by reason of constant rains. In some parts the waterlogged gardens could not be worked. The development of the hop yards was not uniform in mid-June 1961. Generally, the stand was retarded against normal years. The vines had a height from 1.30 to 3.60 m.

**TETTANG.** Warm weather in February and March allowed an early start of **Spring Work**. The favourable weather continued until April so that the plants could show a satisfactory development. Cold and rainy weather started at the beginning of May. Growth was delayed and the hops lost their advance in development. **Pests** and **Diseases** had to be controlled. The plants had reached a height from 2.5 to 4.0 m during the first half of June. Warm weather in mid-June gave a new incentive to growth especially in gardens on lighter soils.

**SPALT.** In this district, too, **Uncovering** and **Cutting** of the hops was finished early and the hops grew well in March and April. This development was interrupted by cold and rainy weather since May. Cultivating of the waterlogged yards was not always possible but it can be noted that weather conditions did not impair Spalt hops so much as in other districts. There are scarcely any **Pests** and **Diseases**. **Hails** on June 8th, 1961, occasioned local damages. In mid-June the vines had reached a height from 1 to 3 m. The stand of the hop yards is rather irregular.

**HERSBRUCKER GEBIRGE.** The **Uncovering** and **Cutting** was finished during the second half of April. During May, the favourable development was hampered by low temperatures which reached 0° C. Rainy weather and oscillating temperatures continued until mid-June. The yards showed a suspended development. The hops had reached a height of 2.5 to 3.2 m on the average. Preventive sprayings against **Downy Mildew** had to be effected especially in hop yards on humid valley locations and were hampered by wet soil.

Warmer weather with less precipitations since mid-June led to a visible improvement of the hops in all districts of production. It is to be hoped that during the important months of July and August hop yards can develop well in order to make good the earlier loss of growth.

**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.

We have the pleasure to announce that

**Mr. PETER BARTH,**

son of our partner Johannes Barth, killed in action during the war, has become a partner of our firm on July 1st, 1961. As a representative of the Barth family's seventh generation, he will continue to preserve the tradition and the standing of our firm.

Succeeding our erstwhile New York Agency and in order to further improve our service in the Western hemisphere, the firm of

**JOHN BARTH INC.**

415, Lexington Avenue,  
New York 17, N. Y.

will become active on July 1st, 1961. The new firm will be managed by Mr. Harald Goering-Barth jun.

In order to meet the increased demand for hop concentrates we have, in conjunction with Messrs. White, Tomkins & Courage Ltd., London, established the firm of

**HOPCON - Joh. Barth & Sohn G.m.b.H.,**

NÜRNBERG 2,  
P. O. B. 331

The new firm will install a factory for the production of hop concentrates in Wolnzach/Hallertau.