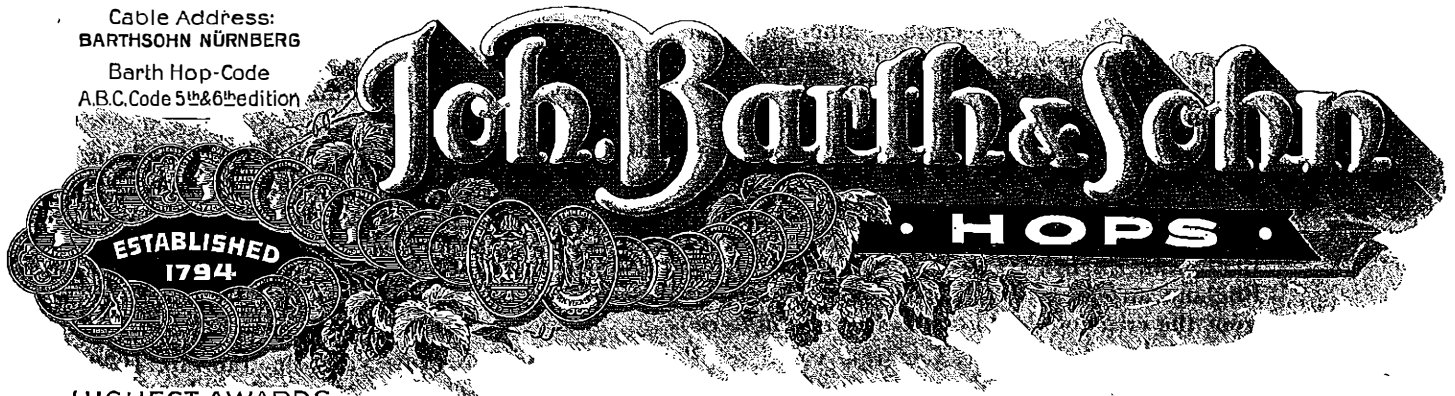


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NUREMBERG, BAVARIA

July 18<sup>th</sup> 1933.

## Hop Report for 1932/33.

The measures of the various countries to protect their trade and currencies have led in the course of the past year to a further decay of the world's trade which amounted in the first 3 months of this year to only about 35 % of the first quarter of the year 1929.

The Beer production of the various countries during the calendar year, or during the fiscal year 1932 respectively, and the years mentioned, is to be seen from the figures below:

Beer-Production.

### Production of Beer.

	Barrels		Barrels		Barrels
*Germany . . . . .	28,616,105	Luxemburg . . . . .	376,651	*Greece . . . . .	56,242
United States of Amer.	21,302,500	*Norway . . . . .	362,164	Venezuela . . . . .	55,386
*Great Britain . . . .	18,439,711	*Roumania . . .1931	356,198	*Livonia . . . . .	52,833
*France . . . . .	15,020,877	*Mexico . . . . .	356,200	*Portugal . . . . .	47,717
Belgium . . . . .	12,867,490	*Italy . . . . .	338,304	*Estland . . . . .	44,311
*Czechoslovakia . . .	8,221,559	*Chili . . . . .	312,720	*Ecuador . . . . .	40,051
*Austria . . . . .	2,605,880	Jugoslavia . . . . .	271,836	*Bolivia . . . . .	35,784
Russia . . . . .	2,556,300	*Finland . . . . .	252,236	Philippine Islands .	34,084
*Sweden . . . . .	2,391,137	*British South Africa .	232,637	*Egypt . . . . .	33,234
*Irish Free State . . .	2,367,986	Hungary . . . . .	156,796	*Turkey . . . . .	27,268
*Australia . . . .1931	2,155,091	*Cuba . . . . .	136,341	San Salvador . . . .	18,747
*Switzerland . . . . .	2,152,535	*Columbia . . . . .	121,005	*Congo . . . . .1931	18,747
*Netherlands . .1931	1,792,075	*Uruguay . . . . .	102,258	*Paraguay . . . . .	8,521
Canada . . . . .	1,789,518	*Algeria . . . . .	92,032	Costa Rica . . . . .	8,521
*Denmark . . . . .	1,708,564	*China . . . . .	86,067	Honduras . . . . .	8,521
Poland . . . . .	1,201,533	*Bulgaria . . . . .	77,460	*Guatemala . . . . .	5,965
*Japan . . . . .	1,175,117	*Panama . . . .1931	74,989	Nicaragua . . . . .	5,113
*Argentina . . . . .	986,791	*India . . . . .1931	74,989	Haiti . . . . .	2,556
Brazil . . . . .	724,329	*Danzig . . . . .	65,611	Jamaica . . . . .	1,704
*Spain . . . . .	612,660	Lithuania . . . . .	61,351		
*New Zealand . . . . .	378,355	*Peru . . . . .	59,650	*official figures.	

**IMPORTANT NOTE:** The following standard figures will allow the readers to understand better the measures, weights and quotations of this report.

1 English Standard barrel = 163,568 liter; 1 American barrel = 117,35 liter; 1 English Standard barrel = 1,383 American barrels; 1 English gallon = 4,543 liter; 1 American gallon = 3,785 liter; 1 hundredweight = 112 lbs. 1 Zentner = 110,2 lbs; 1 hectar = 2,47 acres; 1 acre = 0,4047 hectar.

**PRICES.** All prices are to be understood in DOLLAR GOLD compared to the following currencies:

1 Dollar gold equal to 25 French Francs or 35 Belgian Francs or 4,20 Reichsmark or 33.60 Czechoslovakian Crowns (Kc) or 9 Polish Zloties or 80 Jugoslavian Dinars. 5 Dollar gold = 1 £ Sterling gold.

On publishing this report or part of it please mention our firm.

With very few exceptions, amongst them U.S.A., the consumption of beer has been decreasing during 1932 more or less in most of the countries. Principally due to the world's crisis, there can be no doubt that the high taxes, mostly yielding far less than their previous estimates, have not yet been accommodated to the reduced purchasing power of the masses of the people.

England has taken the consequence by reducing the beer tax, the result of which, in the meantime, is a successful animation in all trades connected with the brewing industry and agriculture.

We estimate the world's beer production for the year 1932 at 156,7 mill. hl (133,5 mill. American barrels = 95,375 mill. English stand. barrels) against 173 mill. hl (147,4 mill. American barrels or 105,8 mill. English stand. barrels) in 1931. The fall of the beer production has been especially large in England and Germany, partly in the eastern countries of Europe and in those of oversea suffering from the crisis of the low prices of raw materials.

Prohibition  
U. S. A.

On Dec. 17, 1917, Congress voted for Prohibition which became valid on Jan. 16, 1920 and continued till April, 7, 1933. During this period beer of alcoholic contents of only  $\frac{1}{2}$  volumen % was allowed for legal sale.

On March 15, 1933 President Roosevelt recommended measures for modifying the Volstead Act. Congress and Senate voted the Cullen Bill, which became valid a fortnight after being passed, i. e. on April 7, 1933. According to this bill, the sale of beer and wine with 3,2 % of alcohol was again made lawful. Up to end of May 1933, the above bill was passed in 33 States out of 48. The Confederate Government raises a tax of \$ 5 per barrel (117,35 liters). The duty for imported beer is \$ 1 per gallon (3,79 liters).

Apart from millions of dollars which the Government had to spend in order to enforce Prohibition, the exorbitant amount of taxes, wages and income withheld from the States and Economical life on account of it has to be reckoned. This consideration and the demoralizing influence on large parts of the population who made the Volstead Act a law more honoured in the violation than in the observance, may well have been the chief reasons for doing away with the „noble experiment“. In 1918, 1100 breweries had produced 50,3 mill. barrels; beginning of April 1933, 164 breweries were still employed in producing near-beer (0,5 %) in U.S.A., with the capacity of an annual production of about 25 mill. barrels. On June 15, 312 breweries had received the permit to brew.

In Iceland, a bill requesting Prohibition to be abolished has been brought in.

Growth of the  
Hop Plants  
in Germany.

Persistent dry frost in Spring of 1932 retarded the uncovering of the plants which was finished only at the beginning of May. The appearance of large numbers of fleas in May was harmless owing to the rapid growth of the plants. End of May the plants proved to be in excellent condition, sound and rather far advanced. Wet weather prevailing throughout all June and July, with the exception of a few warm days, hampered the growth and greatly favoured the spreading of downy mildew in all German hop-growing regions. The growth of feeble plants was almost brought to a standstill by the aphid which caused black blight.

Towards the middle of July, in the Hallertau and the Hersbruck districts, the Aischgrund and Baden, the condition of the gardens was gravely endangered by downy mildew; only precautions had begun spraying after the first warm rainfalls in May; the greater number began spraying late during the two months following. The eastern part of the Au and Nandlstadt districts suffered from a hailstorm on July 23rd. The red spider was traced in sandy soils of the Siegenburg district against which spraying of sulphureous chalk had been applied early in July. It manifested itself also in lighter soils of the Hersbruck hills and Spalt region.

Dry hot weather in August and repeated spraying astonishingly reinvigorated the plants. When the picking began, most German hop-growing districts, especially the Hallertau, Spalt and Tettwang districts, showed excellent aspects. Marked differences could be noticed in the conditions of the single gardens, according to the care of the respective producers. It is reported that some hops rapidly discoloured during the few hot days preceding the picking. This deterioration was caused by downy mildew which increased rapidly through abundant dew in consequence of great differences between day temperatures of above 30° Celsius in the shade and night temperatures of below 10°.

The picking began at the usual time and in Germany proceeded in dry sunny weather. The crop having been able to ripen well, exceeded the original estimate; only an insignificant part of the crop grown, i. e. about 1200 cwt., was not harvested because of the colour not proving satisfactory. There is no doubt that the Hallertau, Spalt and Tettwang hops were judged the best quality of the World's 1932 crop; they were generally approved of, not only at home but everywhere abroad. As to Hallertau hops, preference was given to the Wolnzach and Au districts, whilst of Spalt hops those of the township of Spalt and heavy soils of the Spalt district were most in demand.

Baden hops became deteriorated by mildew and the red spider; Wurttemberg hops by lice and mildew, partly also through wet weather and hailstorms; Tettwang hops were most favoured.

Interesting statistic statements show the number of hop growers in Bavaria to be 14,400, the number of hop plants 29,643,633 on 15,525 acres, on July 1st, 1932.

The cost of production of an average yield of 6 cwt. per acre amounts to \$ 11,50, further 15 % cover spraying, wages, taxes and interest. Adding 10 % growers profit we arrive at about \$ 14,40 growers price, which could not be achieved in the years 1929 to 1932. — The construction of a high trellised garden and its culture until the first crop, costs about \$ 500 per acre.

The quality of the 1932 crop was judged in the various districts as follows:

	first-rate:	middling:	inferior:
	%	%	%
Hallertau . . . . .	75	20	5
Spalt . . . . .	60	20	20
Hersbruck Hills . . . . .	40	30	30
Tettang and surrounding districts	60	30	10
Wurttemberg and Baden . . . . .	50	30	20

	German Hop Imports:	German Hop Exports:
Oct. 1st, 1930—Sept. 30th, 1931:	59,344 cwt.	81,592 cwt.
Oct. 1st, 1931—Sept. 30th, 1932:	22,246 cwt.	58,414 cwt.
Oct. 1st, 1932—May 31st, 1933:	20,925 cwt.	22,695 cwt.

The following table shows the figures of the 1930, 1931 and 1932 crops.

Estimates.

## Hop Acreage and Production.

Producing countries	Acreage in acres			Yield per acre in pounds			Our estimate of the yields in 1000 pounds		
	1930	1931	1932	1930	1931	1932	1930	1931	1932
Hallertau . . . . .	16,779	13,252	10,428	1,000	849	796	16,761	11,251	8,309
Spalt . . . . .	4,055	3,434	2,908	611	375	549	2,480	1,289	1,598
Hersbruck . . . . .	4,292	2,938	2,110	274	97	365	1,179	287	771
Aischground . . . . .	817	499	301	418	154	182	342	77	55
Jura . . . . .	289	227	153	342	194	287	99	44	44
Bodensee . . . . .	64	49	42	515	449	262	33	22	11
Rheinpfalz and other districts . . . . .	1,163	882	652	511	375	371	595	331	242
<b>Bavaria</b>	<b>27,459</b>	<b>21,281</b>	<b>16,594</b>	<b>782</b>	<b>625</b>	<b>664</b>	<b>21,489</b>	<b>13,301</b>	<b>11,030</b>
Wurttemberg . . . . .	3,667	3,177	2,547	607	454	640	2,226	1,444	1,631
Baden . . . . .	1,079	818	622	970	295	532	1,047	242	331
Prussia etc. . . . .	96	46	34	687	480	647	66	22	22
<b>Germany</b>	<b>32,301</b>	<b>25,322</b>	<b>19,797</b>	<b>769</b>	<b>592</b>	<b>657</b>	<b>24,828</b>	<b>15,009</b>	<b>13,014</b>
Saaz . . . . .	29,735	23,349	18,123	805	872	681	23,957	20,387	12,342
Auscha . . . . .	4,208	3,420	3,044	1,044	1,089	846	4,397	3,725	2,579
Raudnitz . . . . .	3,079	2,387	1,863	834	881	615	2,568	2,105	1,146
Dauba . . . . .	602	516	308	1,098	726	896	661	375	276
Moravia etc. . . . .	1,243	1,028	546	683	557	606	849	573	331
<b>Czechoslovakia</b>	<b>38,867</b>	<b>30,700</b>	<b>23,884</b>	<b>834</b>	<b>884</b>	<b>698</b>	<b>32,432</b>	<b>27,165</b>	<b>16,674</b>
Alsace . . . . .	5,011	4,541	3,410	659	121	387	3,306	551	1,322
Burgundy and Lorraine.	2,407	1,415	771	274	350	415	661	496	320
Northern France . . . .	820	479	395	336	576	1,423	276	276	562
<b>France</b>	<b>8,238</b>	<b>6,435</b>	<b>4,576</b>	<b>515</b>	<b>205</b>	<b>481</b>	<b>4,243</b>	<b>1,323</b>	<b>2,204</b>
<b>Poland</b>	<b>7,413</b>	<b>6,177</b>	<b>5,387</b>	<b>557</b>	<b>642</b>	<b>654</b>	<b>4,133</b>	<b>3,967</b>	<b>3,526</b>
Wojwodina . . . . .	2,965	2,471	1,482	483	490	817	1,433	1,212	1,212
Slovenia . . . . .	3,410	3,212	2,965	892	754	631	3,042	2,424	1,873
<b>Jugoslavia</b>	<b>6,375</b>	<b>5,683</b>	<b>4,447</b>	<b>702</b>	<b>639</b>	<b>693</b>	<b>4,475</b>	<b>3,636</b>	<b>3,085</b>
<b>Russia</b>	<b>4,942</b>	<b>4,942</b>	<b>2,965</b>	<b>557</b>	<b>557</b>	<b>557</b>	<b>2,755</b>	<b>2,755</b>	<b>1,653</b>
<b>Belgium</b>	<b>1,890</b>	<b>1,729</b>	<b>1,210</b>	<b>932</b>	<b>674</b>	<b>956</b>	<b>1,763</b>	<b>1,157</b>	<b>827</b>
<b>Various countries</b>	<b>1,235</b>	<b>988</b>	<b>370</b>	<b>446</b>	<b>446</b>	<b>600</b>	<b>551</b>	<b>441</b>	<b>220</b>
<b>Continent</b>	<b>101,261</b>	<b>81,976</b>	<b>62,636</b>	<b>742</b>	<b>676</b>	<b>657</b>	<b>75,180</b>	<b>55,453</b>	<b>41,203</b>
England . . . . .	19,997	19,528	16,531	1,417	969	1,273	28,336	18,928	21,056
<b>Europe</b>	<b>121,258</b>	<b>101,504</b>	<b>79,167</b>	<b>853</b>	<b>732</b>	<b>786</b>	<b>103,516</b>	<b>74,381</b>	<b>62,259</b>
United States of America	19,500	21,400	22,000	1,202	1,354	1,127	23,447	26,410	24,120
Canada . . . . .	948	925	990	1,230	1,329	855	1,166	1,230	791
Australia and New Zealand . . . .	1,802	1,070	1,643	1,223	2,060	2,162	2,204	2,204	2,314
<b>World's production</b>	<b>143,508</b>	<b>124,899</b>	<b>103,800</b>	<b>908</b>	<b>834</b>	<b>862</b>	<b>130,333</b>	<b>104,225</b>	<b>89,484</b>

Before picking, a still regressive beer consumption in Germany and therefore large hop stocks in the breweries had to be stated. Immediately after it, very active dealings in the German hop growing districts began, a consequence of the unfavourable Czechoslovakian crop. Those who formerly had favoured these sorts, were obliged to cover parts of their requirements in Germany. In the Hallertau

Prices.



Also in the **Spalt** and **Tett nang** districts the crop was disposed of quickly at continuously rising prices. In **Spalt** sales set in at RM. 100 (\$ 23.80), whilst the last hops of this famous district — which in our opinion does not grow enough for the world's demand — were paid at RM. 230—250 (54.80 to 59.50). **Tett nang** hops were bought at the initial price of RM. 100 (\$ 23.80), later on rising to RM. 170 (\$ 40).

During picking time in **Czechoslovakia** it could already be stated that the unfavourable result of this crop, due to mildew and red spider, would cause a sensible scarcity in choicest green hops. Six weeks after the beginning of picking, the best qualities and colours had already passed out of growers hands in totality. Prices started in **Saaz** with Kc 425—550 (\$ 12.65—16.40), rose to end of September to Kc 600—800 (\$ 17.90—24) to end of October to Kc 700—1100 (\$ 20.85—32.70), to end of November to Kc 750—1200 (\$ 22.30—35.70). End of October growers stocks in **Saaz** were numbered to be about 20,000 cwt. Until middle of March a slow demand reduced prices to Kc 700—950 (\$ 20.85—28.30).

In **Auscha** prices began with Kc 450 (\$ 13.40), stocks being completely exhausted until mid of November at prices rising to Kc 1000 (\$ 29.75).

The same happened in the other hop countries of Central Europe, viz. **Jugoslavia, Poland and France**, which end of October had been sold out almost entirely, in **Slovenia** and **Backa** at prices rising from Dinar 600 (\$ 7.50) to Dinar 1500 (\$ 18.75), in **Poland** from Zloty 50—150 (\$ 6.20—17.45), in **Alsace** from ffrs 500—900 (\$ 20—36) per cwt.

It is a rare fact that at the beginning of November most of hop districts were cleared out up to small quantities which were estimated at 25—30,000 cwt. at the highest for Central Europe.

The measures of President Roosevelt concerning the modification of Prohibition brought from middle of March active life and demand into the calm hop markets. Very strong tendency caused daily rising prices till the nearly complete exhaustion of the markets stocks. Middle of June the following growers prices were paid for, all hops with Seal and Certificate: 1932 Hallertau RM. 285—295 (\$ 67.85 to 69.05), 1931 Hallertau RM. 100 (\$ 23.80), 1932 Saaz Kc 1900—2450 (\$ 56.50—73), 1931 Saaz Kc 750—850 (\$ 22.30—25.30). — In the course of the last weeks the tendency was quiet and after the wild rise of prices, these have been reduced to Kc 1900—2100 (\$ 56.50—62.50) in **Saaz** and to RM. 275—285 (\$ 65.50—67.85) in **Germany**. The free market stocks in these two countries are only a few hundred cwt.

The analyses of 1932 hops as to their amount of bitter principle, made by the **Governmental Station for Brew-Technical Experiments at Weihenstephan** and at the **Station for Scientific Research in Munich** have produced the following figures to which we add those obtained in the three previous years:

Bitter Principle  
Analyses of 1932  
hops.

Origin	1929	1930	1931	1932
	Bitter substance without water	Bitter substance without water	Bitter substance without water	Bitter substance without water
	%	%	%	%
Hallertau . . . . .	13,5—17,0	15,0—19,1	14,2—19,7	15,9—18,9
Spalt . . . . .	13,5—17,5	15,9—19,5	15,6—19,6	15,3—19,5
Aischgrund . . . . .	13,5	15,0	15,0	15,0—16,3
Hersbrucker Gebirge . . . . .	15,1—16,8	14,1—17,7	15,3—16,4	15,3—18,2
Wurttemberg . . . . .	14,4—17,9	15,2—18,3	15,9—18,7	15,4—20,5
Baden . . . . .	13,7—15,6	14,3—20,2	14,5—18,2	—
Auscha . . . . .	12,5—15,8	14,7—15,8	12,5—15,8	13,1—16,7
Saaz . . . . .	12,9—14,6	14,4—15,8	13,7—16,7	14,2—16,8
Alsace-Lorraine . . . . .	15,3	15,3	—	16,5
Styria . . . . .	13,9—15,4	15,6—16,7	12,4—13,5	13,5—15,3
Backa . . . . .	14,8—14,9	14,9	12,6—14,0	14,5—16,7
Poland . . . . .	15,7—15,8	15,7—16,4	13,0—14,5	13,2—15,5

The German government had again placed at the disposal of the Organisation of Hop Growers, as the official organ of the subsidy for the 1932 crop, the same amount as last year, viz. 1,5 Mill. Reichsmark or about \$ 350,000.—, to enable a necessary intervention. The growers began their purchases at RM. 150.— (\$ 35.70), paying 60 % cash, and as early as October 1932 were able to refund their credits.

Subsidy.

For 1933, German Hop Culture must depend on itself to procure the necessary funds. German hop growers have been requested by their organisation to pay ¼ ct. per plant in cash or with hops of the 1933 crop, thus creating a fund which, completed by credits, will allow a regulating intervention to influence the formation of prices.

The losses of German hop growers during the years 1924/31 are estimated at 10 Mill. Dollars or about 40 Mill. RM. They were caused by crop-failures due to downy mildew, which disease appeared first in 1924 and the two years following, and also to the reduction of 18,750 acres, caused by the pressure of low international prices and the economical crisis.

German Hop  
Culture and  
Hop Trade.

The plight of the German hop growers gave, in the course of the last few years, occasion to a series of protective measures.

1. The Law of Protection of the Origin of German Hops of Dec. 9, 1929, 2. the increase of import duty to \$ 18.— per each cwt., with a simultaneous concession of 20,000 cwt. to Czechoslovakia at \$ 8.35 — the term of expiration for this concession was recently prorogated till Aug. 31, 1933 — 3. the compulsory use of 80% of homegrown hops; 4. the repeated subvention on the part of the Government and 5. a bill passed on Febr. 24, 1933, providing the annual regulation of the acreage.

The regulation of the acreage will prevent the unlimited increase which in years past regularly brought the hop growers of all countries to the brink of ruin. It is expected to induce the growers, to make a better selection of their plants and to avail themselves of technical and scientific progress to a greater degree than up to now, not only with regard to growing but also to the drying of hops.

It will prove a difficult problem for hop growers, now that the German hops have become independent of international price formation, to safeguard their own interests by accomodating them in wise moderation, to those of the Brewing Industry and Export Trade. Our experience allows us to emphasize the general and increasing appreciation of German hops by all brewers of the world who are prepared to buy choicest German hops, but only on the international price basis formed by offer and demand.

Conjuncture at a turning point.

The following table will show that a turn for the better has taken place in hop-growing by adapting the acreage to the requirements.

Year	European Continent in acres	Crop in 1000 lbs.	World's acreage	World's crop in 1000 lbs.	World's beer-production in 1000 amer. barrels	World's hop Consumption in 1000 lbs.
1913	158,129	72,401	249,764	166,622	251,370	188,001
1918	57,584	30,195	100,115	83,091	99,696	104,690
1929	142,500	101,935	196,250	183,813	159,002	128,493
1931	81,976	74,381	124,899	104,225	147,413	119,126
1932	62,636	62,259	103,800	89,484	133,539	106,752

Since the year 1929, the acreage on the European Continent has been reduced from 142,500 acres to round 62,600 acres;

existing acreage is calculated to yield a normal crop of about 880,000 cwt. against the world's consumption of about 955,000 cwt., which calculation was made on the basis of average yields of 6.2 cwt. per acre as to the European Continent, and 11.5 cwt. per acre as to the countries of other continents.

When considering what the prospective hop prices of continental hops might be, two factors are to be taken into account: firstly, the uncontrollable spreading of downy mildew, which disease has reached all hop growing countries with the exception of Australia and New Zealand; the second factor is the as yet unknown demand for continental hops from part of U.S.A., which for the 1933 crop will depend not so much on the prices as rather on the circumstance, whether the U.S.A. crop will be large enough for the coming demand or not. Considering the vast increase of acreage in U.S.A. in the course of this year from 22,000 acres to about 28,000 acres, this country before long will be in condition to cover her own needs. Imports from Central Europe will be limited to the additional quantities, required for the production of special high quality beers, which quantities, as we have mentioned elsewhere, amounted to 5.7 mill. lbs. on an average in the years 1910/14.

Czechoslovakia.

The plants had wintered well during continuously dry and cold weather. To spare expenses the producers did less in combating the fleas. In May the winged aphid fly began to appear, which, as well as their numerous progeny, did severe damage to the gardens until July. Just as in Germany, tropically warm weather prevailed throughout June and July, followed in August by a hot and rainless period, which lasted until the picking. As in all dry years the Czechoslovakian hopfields suffered severely by the red spider. This vermin spread rapidly before and during the picking period, especially near Horosedl and Kolleschowitz over Herrndorf as far as Milostin; it was equally traced in the Bohemian Woodlands, in the Goldbach Valley as well as in large tracts of the Eger River district.

The first evident appearance of downy mildew, which discoloured the cones, was a surprise to the growers and their leaders, with few exceptions. Since 1926 we have not been the only ones to warn them of the danger that a variety of the Pseudoperonospora Humuli (downy mildew) traced in Czechoslovakia in the last few years, might, in a wet summer, cause the partly discolouring of the cones. The visible appearance this year was a hard blow to the growers, totally unprepared to fight this disease, by spraying which in the neighbouring country, Germany, since years is already considered a necessity for growing sound hops. The leaders cannot be spared severe criticism, since in the last years and even during the last picking they were still trying to hide the existence of mildew.

The distressed conditions of the Czechoslovakian hop growers — the prices for the 1931 crop having been extremely low — are the reason for the very parsimonious application of manure and the reduced care in the cultivation of their gardens in comparison to years before. The intergrowing of turnips or potatoes, also in heavy soils, was last year frequently met with.

In the Saaz district picking (done in favourable weather from August 18th till September 5th) suffered from want of hands because of too low wages and in consequence of picker's strikes. In 1931,

a picker was able to finish up 22 measures of 8 gallons each a day, whilst on account of the unequal cones of the 1932 crop, only 12—14 measures were the result of a day's labour, at wages of 3½ cts. a measure.

The quality of the 1932 Saaz crop was inferior to that of the years before, on account of the damages brought about by mildew and the red spider, which drove the pickers to premature and hurried picking. The greater part of the crop was more or less impaired in colour; green hops showed numerous unripe cones unequal in size, a proof of too early picking. Also in the Auscha-Raudnitz district, the wet summer caused mildew virulently to spread in the low-lying gardens which for years had been traced there. In these even the dry heat of August did not stop the disease; the ripening cones showed the well-known yellow-brown speckled aspect. On the other hand, the great heat in August favoured the exceedingly rapid spreading of the red spider in the higher regions as well as in lighter soils of the low regions. Picking proceeded from Aug. 20th to Sept. 20th in fine weather; there was rain only during the first four days; but there were not hands enough available. On 260 acres of Auscha gardens the hops had not been cultured. On account of the wet summer and of deficient manuring, the quality of the 1932 hops proved inferior to the preceding years; the same was stated as to colour. Geltschside hops were favoured. In the valleys, potatoes and turnips are grown between the hop plants, which will aggravate the future quite indispensable spraying against mildew. About 290 acres of hops were not cultured in the Raudnitz district.

The growing of Dauba Greenhops has been greatly reduced. On 175 acres the plants were not trellised; 10% were left unpicked. Propitious weather in August increased the yield in all hop-growing regions; especially the hops harvested later on improved in quality. The advance of prices setting in during the picking period caused a secondary harvest in the gardens, including even badly coloured hops.

A modification of the Czechoslovakian Law of Origin of Aug. 12, 1921 is intended. The scheme aims at rendering compulsory the sealing of all hops including those destined for home consumption in Czechoslovakia; furthermore it provides the regulation of the acreage.

Since the 1932 harvest, the acreage in the Saaz district has been increased by about 5% through new fields and by trellising of such gardens neglected in the preceding years.

In the Auscha district the acreage has been increased by 83 acres to 3,162 acres. No report about Raudnitz has been given.

Quality of the 1932 Crop	first-rate	middling	inferior
	%	%	%
Saaz and Auscha . . . . .	10	60	30
Dauba . . . . .	0	60	40
Raudnitz . . . . .	5	55	40

**Czechoslovakian Imports:**

**Czechoslovakian Exports:**

1st Sept. 1930—31st Aug. 1931:	22 cwt.	181,317 cwt.
1st Sept. 1931—31st Aug. 1932:	—	187,958 cwt.
1st Sept. 1932—30th April 1933:	—	110,168 cwt.

From May till July the hop gardens suffered from bad weather; further from fleas, lice, downy mildew and finally from the red spider to such a degree that the neglected gardens yielded a bad crop. Picking proceeded from Sept. 1st to 15th with favourable weather conditions. Many discoloured hops were picked, but half of the crop being totally useless was not harvested at all. The quality of the crop was judged: 20% prime, 50% middling, 30% inferior.

France.

The chief part of the crop was sold at prices varying between \$ 20 to 28 per cwt.; later on prices rose up to \$ 60. In gardens about 5% of the total acreage that for some years had been neglected, the plants are being cultured again, which for Alsace means an increase of about 875 acres in 1933.

France has again granted an import contingent of 16,000 cwt. to Czechoslovakia at the most favoured duty tariff of \$ 4 per cwt. and to Poland one of 3,000 cwt. The Polish Law of Origin not having yet been completed, Poland has not been able to avail herself of this privilege.

**French Imports:**

**French Exports:**

1930:	40,970 cwt.	24,218 cwt.
1931:	76,290 cwt.	3,192 cwt.
1932:	32,118 cwt.	766 cwt.

A long winter was followed by a propitious period of vegetation; fleas and lice appeared less than usual, but downy mildew was traced everywhere without being combated. Fortunately hot weather in July and August kept it down, thus preventing greater damages.

Poland.

Picking took place in dry and sunny weather; in Volhynia from Aug. 10th till Sept. 5th, in Congress Poland from Aug. 5th to Aug. 30th, in Galicia from Aug. 10th to Sept. 20th, in Great Poland from Aug. 20th to Sept. 10th. The crops proved somewhat lighter in quality than usual. There were differences as to colour and yield according to the personal care bestowed on the gardens, but on an average the result was about corresponding to that of the year before. In Congress Poland about 375 acres of the total acreage of round 1500 acres the plants had not been cultured; moreover, about 15% was not harvested on account of the low prices.



Prices set in at \$ 8—13; in January they rose to \$ 16—30; in May small remainders were disposed of as high as \$ 52. 1931 hops fetched in May \$ 10—12 and 1930 hops \$ 5—7.

From those gardens in Poland which were neglected during the last two years, a yield of only two thirds may be expected for the 1933 crop. The distressed financial conditions of the farmers will not allow them to increase the acreage by more than about 125 acres, so that the total acreage for the 1933 crop will amount to about 6125 acres, including the above mentioned gardens not cultivated in 1932, estimated at about 1250 acres.

Quality of the 1932 crop	first-rate	middling	inferior
	%	%	%
Volhynia and Great Poland . . . . .	30	35	35
Congress Poland . . . . .	60	30	10
Galicia . . . . .	45	45	10
	<b>Imports to Poland:</b>		<b>Exports from Poland:</b>
1st Sept. 1930—31st Aug. 1931 . . . . .	6,012 cwt.		32,698 cwt.
1st Sept. 1931—31st Aug. 1932 . . . . .	918 cwt.		30,070 cwt.
1st Sept. 1932—30th Apr. 1933 . . . . .	2 cwt.		32,726 cwt.

In Austria the acreage has been reduced to 125 acres.

In Roumania all the hop gardens in the districts of Schässburg, Keisd, Mediasch and surroundings have been uprooted with the exception of but one garden.

In Norway the Brewers Association caused experimental gardens to be laid out at Hardanger; the Swedish Brewers Association owns such gardens at Lund.

**Jugoslavia.**

**Slovenia.** The hops suffered from low temperatures in early Spring, then from fleas and later on, until the end of July, from flies. Drought greatly hampered the normal growth. Picking was done from Aug. 12th to Aug. 27th. The cones were mostly impaired in colour, unequal in size, smaller and lighter than usual. Wet soils were favoured in that dry year.

**Wojwodina.** The hops were free from vermin and disease, except for a transitory infection from downy mildew at the beginning of August. Picking was favoured by propitious weather and lasted from Aug. 20th till Sept. 3rd; 10 % of the hops grown were speckled and therefore not harvested. Colour and quality were judged to be finer than in 1931; premature picking caused the hops to be lighter in quality and the cones to be unequal in size. Backa was favoured against Syrmia.

The increase of acreage since the 1932 harvest is of 10—15 % or of barely 500 acres in Slovenia; in the Backa the acreage was increased in the Autumn of 1932 by 25—30 % and in Spring 1933 by further 40 % against the acreage of the year before; on the whole by about 850 acres from which a third or half of a full yield is looked for in this year provided the growth be normal.

The prices of 1932 hops set in at about \$ 12.50 per cwt. and by leaps and bounds sprang up to \$ 43.50 by the end of December, to \$ 50 by the beginning of April and to \$ 100 by the end of May. 1931 hops also had a rising tendency, beginning from \$ 2 up to \$ 16.50 per cwt. in May 1933.

In May, 1929 and 1930 hops were paid \$ 2—6 per cwt. by speculative traders.

Wet and cold weather up to the end of June proved prejudicial to the growing plants. At the time of writing the conditions of the hopgardens in the Wojwodina are still unfavourable.

	Jugoslavian Imports:	Jugoslavian Exports:
1930:	1,516 cwt.	54,125 cwt.
1931:	1,900 cwt.	26,000 cwt.
1932:	492 cwt.	33,052 cwt.

**Belgium.**

The considerably reduced acreage was cultivated with great care; male plants were eliminated. The weather preceding the picking period (beginning Aug. 1929) was propitious to the ripening of the cones. The product was of a heavier quality than usual, since it contained no seeds; colour left something to be desired.

Belgian hops may obtain seal and certificate to qualify them "prime", if answering to the following conditions: ripe and carefully picked; free from seeds; amount of moisture not below 9 % nor above 12 %; exempt from accessory smells, and packed before Dec. 25th. The best qualified hops shall receive monetary awards.

The governmental efforts for improving hop culture deserve full praise.

In 1933, the acreage is estimated to have increased by 25—50 acres in the Alost district, by 185 acres in the Poperinghe district.

Prices set in with about \$ 11.50, rose to \$ 20—22 by the middle of April 1933, to \$ 40.— by the end of May.

	Belgian Imports:	Belgian Exports:
1930:	65,060 cwt.	3,360 cwt.
1931:	78,936 cwt.	2,412 cwt.
1932:	44,936 cwt.	3,462 cwt.



Growth suffered from an early appearance of vermin, later on followed by downy mildew, but both the diseases were successfully combated. Just as in Germany, repeated spraying means a considerable increase of cost. Favourable weather in August and September was a decisive factor in determining the quantity and quality of the crop which both proved to be excellent, being the best crop harvested these last seven years. The quality has to be rated at: 70 % first class, 20 % middling, 10 % inferior.

Kent and Worcester were favoured. In consequence of overproduction, to be attributed to the erroneous system of the former Hop Control that tried to obtain good prices without regulating the acreage according to the needs, the English acreage since 1929 from 23,986 acres has been reduced to 16,531 acres in 1932, since 1931 by further 3000 acres. Hops cost £ 80 (= \$ 400) an acre to grow as against \$ 12 (= \$ 60) for cereal crops.

On Sept. 6th, 1932, the "Hops' Marketing Scheme", deliberated rather hurriedly, came into force, with a majority of 93 % of the growers. The registered English hop growers are forced to sell their hops through the so-called Hops' Marketing Board (H. M. B.), which, up to a certain date, has to take over all the hops harvested and to value, pack, sell and dispatch them. The Hops' Marketing Board is entitled to advance money or require additional payments, also to fix fines. The agricultural marketing act is being invoked in schemes for the marketing of potatoes, pigs, meat, milk and eggs. The scheme for hops was the first to come into operation (on Sept. 6th, last). The various defective points of it are to be changed in the course of this year by an amending scheme which is now under discussion. It is intended to assign to each grower a basic quota corresponding to his average crop during the last five years which shall not be larger than 20 cwt. and not less than 8 cwt. per acre of hops of the 1932 acreage. For the crop 1933 it is proposed that the quantity of each growers' quota shall be equal to his basic quota. The hops delivered in excess will be paid for only after all quota hops have been paid in full. Some further provisions concern transfer operations and the concession of new quotas. The high duty on hops of £ 4 (= \$ 20) per cwt. has been prolonged up to Aug. 16th, 1937.

The Hops' Marketing Board recommended to the 1100 English growers in no way to increase the acreage existing in 1932, but rather to restrict it, by say at least, 10 per cent.

On Oct. 10th, 1932, trading commenced. The Hops' Marketing Board fixed on the basis of average samples the prices for first quality: 220—230 sh (\$ 55—57.50), second quality: 200—210 sh (\$ 50—52.50), third quality: 170—180 sh (\$ 42.50—45). These prices established on the basis of the first samples of the various types occasioned discontent. Also the growers of the best sorts such as Bramblings, Mathons, Fuggles, Golding varieties were disappointed by the prices fixed by the H.M.B., judging them too low in comparison with those of inferior sorts of abundant yield.

The reduced beer consumption in England had left the breweries with large stocks, so that the eager demand for first quality hops, setting in after picking, generally proved a surprise. On Jan. 2, 1933 the Hops' Marketing Board augmented the prices by 10 sh (\$ 2.50). End of April a lively demand sprang up for U.S.A. and also for English supplementary requirements.

The 1914 beer production of 35,2 mill. standard barrels (or 49 mill. American barrels) has shrunk to about 13,2 mill. standard barrels (18,4 mill. Americ. barrels) in 1933, in consequence of exaggerated taxation, the tax having been raised from 7s9d in 1914 to 114 sh per barrel (viz. from \$ 1.95 to \$ 28.50) up to 1931. In the same degree hop consumption in England decreased from 559,000 cwt. in 1914 to less than 220,000 cwt. at present.

On April 26th, 1933, the beer-tax of 114 sh was reduced by 24 sh (= \$ 6) enabling the brewers to reduce the price for a pint of beer from 6 d to 5 d (or from 12 cts to 10 cts); the new tax was fixed for beer with a higher content of alcohol, allowing beer to become cheaper and better at the same time. This encouraged the English Brewing Industry to buy ample provisions, so that not only the 1932 hops in the hands of the H.M.B. were entirely cleared, but also all the stocks of the trade at prices rising up to \$ 3 (= \$ 15). End of May, 1929 hops were paid 20—30 sh (= \$ 5—7.50), 1931 hops 25—30 sh (= \$ 6.25—7.50) each cwt.

The sale of the entire bulk of the 1932 crop of English hops in its initial venture is a success of the newly established H.M.B., due, as they themselves agree, only to a series of lucky circumstances not to be foreseen. Among them may be numbered the vintage quality of the 1932 crop, the higher prices of continentals due to entire absence of foreign competition, the greater demand brought about by the abolition of Prohibition in U.S.A., and last not least, the additional needs on part of the English breweries, as a consequence of the reduced beer-tax.

The principle of organised selling deprives the single producer of the opportunity to make his hop culture more profitable, because it allows the incapable grower to partake in the success obtained by the industrious one; we opine that in the long run, this system will have a prejudicial effect on the quality of English hops; it will also cause a reduction of exports and an increase of imports. It further means a waste of common wealth if only part of the crop grown is disposed of by the quota allowed, whilst the rest is exposed to the danger of not being taken over or annihilation.

	English Imports:	English Exports:
1st Sept. 1930—31st Aug. 1931 . . . .	42,569 cwt.	29,056 cwt.
1st Sept. 1931—31st Aug. 1932 . . . .	52,425 cwt.	20,241 cwt.
1st Sept. 1932—31st May 1933 . . . .	13,078 cwt.	20,168 cwt.

A belated Spring was followed by a short period of warmth and then by continued heat.

In Oregon large numbers of lice made their appearance. As to the violent infection of downy mildew, only few growers combated the disease by spraying; all others limited themselves to picking off the spikes. The crop, by 15,000 bales inferior to that of the preceding year, proved injured by mildew; it was entirely harvested in very fine weather between Aug. 20th and Sept. 12th. Colour was judged first class, quality not quite so fine as in 1931. In Oregon 1115 acres were planted with Fuggles, 2144 acres with early Clusters and 11,522 acres with late Clusters.

Washington. Wet weather in Spring and in July favoured the spreading of downy mildew, which disease again brought about the failure of almost the whole crop in Western Washington. The picking was done within a few days, between Sept. 5th and 10th, since 80% of the hops grown were not gathered because of their quality. Yakima hops suffered neither from diseases nor from vermin, but through windy and cold weather up to June. Picking lasted from Sept. 5th to Sept. 25th. California. All the hops grown were harvested from Aug. 20th to Sept. 20th in fine warm weather. The Sacramento district was favoured.

Quality was judged	first-rate:	middling:	inferior:
	%	%	%
California . . . . .	75	20	5
Oregon . . . . .	60	35	5
Western Washington . . . . .	0	60	40
Yakima . . . . .	75	20	5

Before the 1932 harvest, the growers stocks of 1931 hops were estimated at 11,000 bales.

After the Harvest. The initial quotations for the new crop were 11—14 c per lb., by the end of December they had advanced to 26—28 c. Then the market was quiet in expectation of the decision about Prohibition. By February the prices had weakened to 20—21 c, but middle of March there was a quick recovery so that towards the end of the month prices were moving within the limit of 25—30 c, end of April between 40—45 c (the depreciation of the dollar began on April 19th), end of May between 85 and 92 c. In June prices declined about 3½—9 c on the various grades. 1931 hops fetched 10—12 c in Sept. 1932, 38 c end of April 1933, 75 c end of May; 1930 hops fetched 25—40 c. Beginning of May, the producers' stocks were reported to be 10,600 bales of 1932 hops, 2351 bales of 1931 hops, 163 bales of 1930 hops, 2082 bales of the 1929 and 2100 bales of the 1928 crop. Until end of June these quantities were reduced to 11,935 bales of all ages.

The abolition of Prohibition caused a vast increase of the acreage which is estimated as follows: 2300 acres in California, out of which 1400 acres in Sacramento and 900 in Sonoma; about 1450 acres in Washington, whereof 1250 in Yakima and 200 in Western Washington; finally 2500—3000 acres in Oregon. Hop roots fetched high prices, on an average of about \$ 17.50 per thousand as against not even \$ 10 in Germany. The cost of a new plantation is reported to be about \$ 400 per acre.

The State of New York that in past times grew about 25,000 bales of hops, — at that time more than along the whole Pacific Coast — for the present possesses but 3 gardens. It is intended to re-introduce there the hop culture, although the New York State crop yields half the quantity per acre in comparison to the Pacific Coast; the produce fetches higher prices on account of its better quality. Chenango, Oneida, Madison, Otsego, Schoharie, Montgomery and Franklin were formerly the best sites.

A yearly beer production of 35—40 mill. barrels is expected for the beginning, presuming to increase with the gradually rising number of breweries. On the basis of 0.70 lb. per barrel, the annual hop consumption is calculated to amount to 24,5—28 mill. lbs., to which an annual export of about 7 mill. lbs. on an average has to be added.

Basing on an average of the crops grown in U.S.A. in the last 5 years, i. e. 1224 lbs. per acre, 25,700—28,600 acres are required for the annual need of hops estimated at 31,5—35 mill. lbs. The existing (yielding) acreage is of 22,000 acres, to which are to be added 6,000 acres of new gardens laid out on the West Coast in 1933.

Hop imports, calculated on the average figures shown in the normal years 1910—1914, i. e. on an average beer production of 63,3 mill. barrels and average hop imports of 5,7 mill. lbs. are reckoned to amount under the present conditions to 3—3,6 mill. lbs. or about 12,5% of the total hop consumption in U.S.A., considering beer production of 35—40 mill. barrels. Some experts in U.S.A. expect imports of 30% of the total consumption, which would mean 6—7 mill. lbs. which appear to us exaggerated. Since Sept. 1, 32 to June 23, of this year 10,251 bales have been imported in New York, of which we believe not all have already been sold to the consumers.

The amount of foreign hops to be imported in U.S.A. will depend not only on the requirements, but also on the prices of continental hops, especially as soon as the U.S.A. acreage will yield sufficient quantities for covering the home need. The import duty on hops is 24 cts per lb.

The table below shows several series of figures from the 10 years previous to Prohibition. We add the growing figures of the population in U.S.A., which have to be taken in consideration when estimating the future prospects of beer production and hop culture: population in U.S.A. in 1910: 91,972,000; 1920: 105,711,000; 1930: 122,775,000 inhabitants.

Year	Acreage in acres	Yield per acre in pounds	Total Yield in pounds	Export in pounds	Import in pounds	Beer Production in barrels	Hop Consumption in pounds
1910	45 500	937,5	42 660 000	10 603 844	3 200 560	59 485 117	43 293 764
1911	44 800	1137,0	50 940 000	13 122 748	8 557 531	63 283 123	45 068 811
1912	47 500	1350,9	64 170 000	12 226 532	2 991 125	62 176 694	42 436 665
1913	45 000	1700,0	76 500 000	17 627 054	8 494 144	65 324 876	44 237 735
1914	44 000	1624,0	71 460 000	24 293 120	5 382 025	66 189 473	43 987 623
1915	44 653	1186,6	52 986 000	16 227 390	11 651 332	59 808 210	38 839 294
1916	43 900	1152,5	50 595 000	22 544 389	675 704	58 633 624	37 451 610
1917	29 900	982,9	29 388 000	4 901 091	236 849	60 817 379	41 949 225
1918	25 900	829,4	21 481 000	3 532 402	121 288	50 266 216	33 481 415
1919	21 000	1189,0	24 970 000	7 471 671	6	27 712 648	13 924 650

The growth of the 1933 crop suffered from a cold winter and a late spring. Since end of April the dangerous downy mildew showed itself again in Oregon and Western Washington.

<b>U.S.A. Imports:</b>	<b>U.S.A. Exports:</b>
1930: 1,098,000 lbs.	7,640,000 lbs.
1931: 1,077,339 lbs.	3,797,047 lbs.
1932: 1,299,698 lbs.	3,006,476 lbs.

In Victoria and Tasmania governmental shortsightedness by overtaxing beer — 2 s per english gallon (4,544 liters) — greatly prejudiced beer production and consequently hop culture. Whilst in the past 10,000 bales of 250 lbs. each of home-grown hops were consumed, now 5,000 bales are deemed sufficient.

Australia.

In New-Zealand, hops are grown in the Nelson district exclusively, on 650 acres. Picking lasted from March 1st to the beginning of April; of the whole crop grown, i. e. 7,500 cwt., 300 cwt. were not gathered. In that fortunate country the plants were able to develop without any infection either by vermin or disease. As everywhere, consumption suffers in consequence of the world's crisis, so that the acreage had to be reduced by one third since 1931.

New Zealand.

The following table of the World's hop consumption in 1932/33 is calculated on known figures.

World's Hop Consumption.

### World's Hop Consumption 1932/33.

	Beer Production 1932 american barrels	Dose of hops per barrels in pounds	Hop Consumption in 1000 pounds
Germany . . . . .	28,616,105	0,59	17,023
Austria and Hungary . . . . .	2,762,676	0,67	1,857
Czechoslovakia . . . . .	8,221,559	0,77	6,378
Poland and Danzig . . . . .	1,267,144	0,77	938
Roumania, Jugoslavia . . . . .	628,034	0,77	487
Baltic States . . . . .	410,731	0,71	292
Balkan . . . . .	160,970	0,64	104
France . . . . .	15,020,877	0,45	6,798
Belgium and Luxemburg . . . . .	13,244,141	0,58	7,707
Netherlands . . . . .	1,792,075	0,55	996
Norway . . . . .	362,164	0,55	201
Denmark . . . . .	1,708,564	0,42	728
Sweden . . . . .	2,391,137	0,42	10,20
Switzerland . . . . .	2,152,535	0,51	1,113
Spain, Portugal, Italy . . . . .	998,681	0,64	646
Russia . . . . .	2,556,300	0,64	1,653
<b>Continent</b>	<b>82,293,693</b>	—	<b>47,986</b>
Great Britain . . . . .	18,439,711	1,29	23,846
Irish Free State . . . . .	2,367,986	1,94	4,593
<b>Europe</b>	<b>103,101,390</b>	—	<b>76,425</b>
United States of America . . . . .	21,302,500	—	22,040
Canada . . . . .	1,789,518	0,97	1,736
Central America . . . . .	618,657	0,71	440
South America . . . . .	2,446,495	0,77	1,898
Eastern Asia . . . . .	1,295,268	0,64	838
India . . . . .	74,989	1,16	87
Australia and New Zealand . . . . .	2,533,446	1,16	2,948
Africa . . . . .	376,650	0,90	340
<b>World's consumption</b>	<b>133,538,913</b>	—	<b>106,752 lbs.</b>

**Canada.** Canada levies a duty of 16 cts. per lb. (£ 4/8/8 per cwt.) on hops of American or European-Continental origin, whilst English origin is charged by only 8 cts. and Australian by only 6 cts. per lb.

The needs of U.S.A. for beer production in 1933 are estimated on the basis of 35—40 mill. barrels at about 24,5 to 28 mill. lbs. of hops or 220—245,000 cwt.

The world's hop consumption for 1933 may therefore be taken at about 955,000 cwt., subject to change in the world's beer production.

The resumption of brewing in U.S.A., the speculative factors connected with future requirements and the quickly rising prices caused an eager demand for contracts for the 1933 and further crops. In Germany contracts are not usual.

**Contracts.** The following prices per cwt. have been paid for contracts in Saaz (Czechoslovakia) in April Kc 1000 (\$ 29.75), in June Kc 1600—1800 (\$ 47.60—53.50). Auscha-Raudnitz in February Kc 450—550 (\$ 13.40—16.30), rising to Kc 1550 (\$ 44.50) in May, Kc 1350 (\$ 40) in June.

**Jugoslavia:** in January Dinar 1000—1250 (\$ 12.50—15.65), in April Dinar 1500 (\$ 18.75). In total 1200—1500 cwt. In July all anticipated contracts for the next crop closed in Jugoslavia have been declared nul by the legal authorities.

**Poland:** in Mai Zloty 225 (\$ 25), in June Zloty 300—350 (\$ 33.30—38.70) with the clause of 50—70% possible additional payment. In total 1500—1800 cwt.

**Belgium:** in February bfrs. 650 (\$ 18.50), in April bfrs. 850 (\$ 22.90), advancing to bfrs. 1100 (\$ 31.40) in June.

**U.S.A. Oregon:** in August 1932 15—17 c for 2—5 years, beginning with the 1933 crop; in March 1933 20—21 c for 3—5 years; in April 30 c for the 1933 crop, 26 c for 4 years more; in May till 50 c for the 1933 crop, 40—50 c für 3 years and 38 c on an average for 5 years.

**Washington:** in May 1933 35—45 c for 3 years, 33 c for 5 years; in June 30 c for 5 years.

**California:** in April 32,5 c for the 1933 crop; in May 55 c for the 1933 crop, 45 c for the 1934 crop and 35 c for the 1935 crop.

Contracts in U.S.A. were made to an extraordinary extent: by mid June 50% of the 1933 Californian crop, estimated to amount to 45—50,000 bales of 190 lbs. each, were presumed to have been contracted. Out of an estimated crop of 30,000 bales in Yakima, which yielded last year only 21,700 bales, a number of 23,000 bales are said to be contracted. In Oregon 38,000 bales of the 1933 crop have been sold up to date. Many former contracts are still running for several years at ruinous prices of 11—15 c.

**Growth of the 1933 Crop.**

After an extraordinarily mild and dry winter in Europe the work in the hop gardens began early in Spring, so that beginning of May nearly all gardens were uncovered. May and June brought frequent rains at low temperatures by which the growth was somewhat retarded. Fleas appeared in large numbers everywhere, but owing to the wet caused less damage than usual, whilst a very strong infection by downy mildew was reported from Germany, Czechoslovakia, Jugoslavia and other hop-growing regions of the continent, causing evident damages where spraying had been neglected in the last few years. In June, flies were noticed in many places. — By the end of June Central Europe is generally stated to be unequal and weaker than usual, though warm and dry weather during the months to come will be able still to improve the condition of the hop fields.

A most favourable growth has been reported from England and Belgium, although in June downy mildew and flies had to be combated.

As to U.S.A., in Oregon and Western Washington downy mildew appears to prove a plague, just as it did in the preceding year. As long as the growers do not make up their minds to make use of the reliable spraying methods generally practised in Europa, but leave it mostly to optimistically looked-for dry summer heat to combat the disease, they will not be able to prevent the crop from being reduced in quantity and impaired in quality.

**Joh. Barth & Sohn.**