

# Joh. Barth & Sohn

HOPS SINCE 1794

HOP FARM BARTHOF HALLERTAU

TELETYPE 06/22030  
CABLE ADDRESS:  
BARTHSONN NUERNBERG

8500 NÜRNBERG 2  
P. O. B. 331  
TELEPHONE 4 94 21 / 23

August 2nd, 1968

## Hop Report 1967/68

The still unfinished war in Vietnam, remarkable political developments in Eastern Europe, an almost three weeks general strike in France, as well as racial riots in the U. S. A., and student revolts in East and West testify to the political and social unrest which has encompassed the entire world.

Britain was forced to devaluate its currency at the rate of 14.3 % as a consequence of the incessant weakness of the Pound Sterling. In the U. S. A. the gold coverage of 25 % was suspended as a measure against gold speculations and for the protection of the Dollar. Furthermore the gold course was split in an official rate for the exchange between the International Reserve Banks and monetary authorities at \$ 35.—/ ounce and a free market.

For the first time in its history after the war the **Federal Republic of Germany** experienced a longer recession. The lowest level was passed during the middle of 1967. On account of a lower domestic demand export activity was stronger than ever before, while imports decreased by about 3.4 %. According to the trade balance 1967 a surplus of D-Mark 16.9 billion (1966: 8 billion) was achieved, whereas due to international commitments the balance of payments produced a surplus of only D-Mark 1.44 billion.

World beer production in 1967 showed an increase of about **15.3 million bbl.** compared to 1966. The rate of growth is as follows: Western Europe + 2.6 %, Eastern Europe + 2.2 %, North America + 3 %, Central and South America + 9.1 %, Africa + 3.1 %, Asia + 13.1 %, Australia and Oceania — 0.5 %.

**Economical  
Situation**

**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                     |
| 1 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. = 1,016.059 kg   |  |
| 1 metr. ton = 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.                             |
| 1 bushel (bu) = 48 lbs. = 21.77 kg (corn, malt)  | 1 Ztr. = 2.2965 bu.                              |
|  | 34 lbs. = 15.42 kg (malt)                        |
|  | 1 Ztr. = 3.2425 bu.                              |
| DM 1.— = US\$ —.25 / DM 4.— = US\$ 1.— / US\$ 2.40 = DM 9.60 = £ 1.—                                     |  |
| 1 mm precipitations = 1 Ltr. of water per m <sup>2</sup> , 1 mm = 0.04 inch, 1 inch (100 points) = 25 mm |  |

Conversion of thermometer degrees in Fahrenheit and Celsius:

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

$$30^{\circ} C = \frac{30 \cdot 9}{5} + 32 = 86^{\circ} F$$

| Production of Beer 1967 |        |                            |         |                          |                            |
|-------------------------|--------|----------------------------|---------|--------------------------|----------------------------|
| Country                 |        | 1000 bbl. of 31 gall. each |         | Country                  | 1000 bbl. of 31 gall. each |
| Germany W.              | 65,844 |                            |         | b. f.                    | 2,958                      |
| East*)                  | 12,783 |                            |         | Nigeria                  | 548                        |
| England                 |        | 78,627                     |         | Kenya                    | 520                        |
| USSR*)                  |        | 42,485                     |         | Cameroons*)              | 511                        |
| France                  |        | 27,015                     |         | Angola                   | 368                        |
| Czechoslovakia          |        | 16,870                     |         | Rhodesia                 | 349                        |
| Belgium                 |        | 16,527                     |         | Algeria                  | 298                        |
| Spain                   |        | 9,990                      |         | Ruanda-Burundi           | 298                        |
| Poland                  |        | 8,011                      |         | Morocco                  | 298                        |
| Austria                 |        | 7,633                      |         | Ghana                    | 222                        |
| Netherlands             |        | 6,532                      |         | Zambia*)                 | 218                        |
| Denmark                 |        | 5,600                      |         | Uganda                   | 217                        |
| Italy                   |        | 5,119                      |         | Mozambique               | 196                        |
| Hungary                 |        | 4,726                      |         | Tanzania                 | 193                        |
| Switzerland             |        | 4,104                      |         | Ethiopia                 | 192                        |
| Jugoslavia              |        | 3,949                      |         | Ivory Coast*)            | 170                        |
| Ireland                 |        | 3,722                      |         | Tunisia*)                | 153                        |
| Sweden                  |        | 2,966                      |         | Egypt*)                  | 132                        |
| Roumania*)              |        | 2,545                      |         | Senegal*)                | 102                        |
| Bulgaria                |        | 2,386                      |         | Centralafric. Rep.*)     | 94                         |
| Finland                 |        | 1,918                      |         | Sudan                    | 86                         |
| Norway                  |        | 1,208                      |         | South West Africa*)      | 86                         |
| Portugal*)              |        | 964                        |         | Rep. Congo (Brazzav.)    | 70                         |
| Greece                  |        | 775                        |         | Madagascar               | 46                         |
| Luxembourg              |        | 681                        |         | Dahomey                  | 43                         |
| Malta*)                 |        | 450                        |         | Libya                    | 34                         |
| Iceland                 |        | 30                         |         | Togo                     | 31                         |
|                         |        | 17                         |         | Guinea                   | 27                         |
| <b>Europe</b>           |        |                            | 254,850 | <b>Africa</b>            |                            |
| U.S.A.                  |        | 106,975                    |         | Japan                    | 20,725                     |
| Canada                  |        | 17,574                     |         | Philippine Islands*)     | 1,790                      |
| Mexico                  |        | 10,248                     |         | Vietnam                  | 1,023                      |
| Brazil                  |        | 7,244                      |         | China*)                  | 852                        |
| Columbia                |        | 6,818                      |         | Israel*)                 | 511                        |
| Venezuela               |        | 6,818                      |         | South-Korea              | 472                        |
| Argentina               |        | 2,370                      |         | Malaysia                 | 426                        |
| Peru                    |        | 2,050                      |         | Singapore                | 308                        |
| Chile                   |        | 1,692                      |         | Thailand*)               | 298                        |
| Cuba                    |        | 1,542                      |         | Turkey                   | 284                        |
| Puerto Rico             |        | 1,158                      |         | Indonesia                | 213                        |
| Uruguay                 |        | 1,012                      |         | Taiwan*)                 | 170                        |
| Ecuador                 |        | 520                        |         | India                    | 158                        |
| Panama                  |        | 393                        |         | Iran*)                   | 153                        |
| Jamaica                 |        | 276                        |         | Hongkong                 | 132                        |
| Bolivia                 |        | 265                        |         | Okinawa                  | 128                        |
| Guatemala               |        | 243                        |         | Iraq*)                   | 60                         |
| Dominican Republic      |        | 221                        |         | Ceylon                   | 58                         |
| Honduras                |        | 170                        |         | Lebanon                  | 48                         |
| Nicaragua               |        | 170                        |         | Cyprus                   | 43                         |
| El Salvador             |        | 131                        |         | Syria*)                  | 25                         |
| Costa Rica*)            |        | 117                        |         | Pakistan                 | 21                         |
| Trinidad a. Tobago      |        | 102                        |         | <b>Asia</b>              |                            |
| Paraguay                |        | 89                         |         | Australia                | 11,749                     |
| Martinique              |        | 84                         |         | New Zealand              | 1,781                      |
|                         |        | 17                         |         | Tahiti*)                 | 17                         |
| <b>America</b>          |        |                            | 161,481 | New Caledonia*)          | 5                          |
| Congo-Kinshasa          |        | 1,704                      |         | <b>Australia/Oceania</b> |                            |
| Rep. of South Africa    |        | 1,254                      |         | Total                    | 466,241                    |
| c. f.                   |        | 2,958                      | 416,331 |                          |                            |

\*) = estimate

### Beer Output in Western Germany

Output of beer in Western Germany during the year 1967 amounted to . 63,769,669 bbl.  
Production of beer in the Western sector of Berlin for the same period was . 2,074,277 bbl.

Total **65,843,946 bbl.**

These figures include 1,330,432 bbl. for exports delivered tax-free (1966 = 1,280,686 bbl.) as well as sales against foreign currency and to the occupation forces totalling 276,035 bbl. (1966 = 275,064 bbl.).

The imports of beer to Western Germany amounted to 398,771 bbl. in 1967.

### Imports of Beer 1967

## Crop 1966 (Supplement)

Complete figures of imports and exports of hops, crop 1966 during the period of September 1st, 1966, to August 31st, 1967, can now be stated as follows:

|                   | Import          | Export          |
|-------------------|-----------------|-----------------|
| Germany . . . . . | 13,900,444 lbs. | 12,276,976 lbs. |
| Belgium . . . . . | 3,413,382 lbs.  | 2,011,477 lbs.  |
| England . . . . . | 1,550,054 lbs.  | 2,110,905 lbs.  |
| U. S. A. . . . .  | 8,231,756 lbs.  | 23,437,764 lbs. |
| France . . . . .  | 2,001,777 lbs.  | 2,200,632 lbs.  |

The world production of beer and hops showed an increase of about 2% each in 1966 against the year before. For this reason there were sufficient hops to supply the brewing industry despite of a temporary shortage in some provenances and only small stocks at decreasing prices had to be carried over into the new crop year, especially in the U. S. A.

## Crop 1967

With the world production of hops, crop 1967 a structural change of the world market has become evident:

**Market  
Survey**

The reduction of the US-hop production (share of the world production in 1966: 26.6 %, 1967: 23.8 %) and at the same time a large German hop crop (share of the world production in 1966: 18.4 %, 1967: 23.7 %) was the consequence of a steadily increasing hop acreage during the past years.

The price development of the **German hop market** was influenced by the following circumstances:

- A well stocked domestic brewing industry as a result of the stagnating beer consumption in Germany
- Large yields per acre of crop 1967 especially in the Hallertau district owing to favourable climatic conditions
- Reduction of the hopping rate in the beer.

Trading started with a heavy baisse, which, however, rendered very good export possibilities and presented an incentive for further buying into stock of hop products (hop extract and hop powder). The German hop crop was sold out at the end of November with the exception of small remaining lots.

The consumption of the **US-Crop** turned out to be more difficult. The narrowing of the price differential between European and US-hops resulted in export losses. The established Hop Market Agreement induced the American farmers to a firmer attitude. The sellout of the market was finally favoured by several fires destroying 30,000 cwts. of hops.

On the world market the importance of the hop exporting countries of **Eastern Europe** during the season 1967/68 was lower than the years before.

On account of the disappointing crop result, the CSSR was not in a position to offer additional export surplus.

Jugoslavia and especially Poland failing to adjust their prices in time conforming to the quotations on the world market, retarded the sellout of the hop crop 1967.

**Bitter Values  
of Crop 1967**

| Origin                          | Total resin content anhydric | Soft resins % |       | Humulon % |       | Lupulon + Fraction of soft resin % |       | Hard resins % |       | Bitter value Wöllmer |      |
|---------------------------------|------------------------------|---------------|-------|-----------|-------|------------------------------------|-------|---------------|-------|----------------------|------|
|                                 |                              |               |       |           |       |                                    |       |               |       | 1967                 | 1966 |
| Hallertau . . . . .             | 16.7                         | 13.7          | 82.20 | 6.3       | 37.50 | 7.5                                | 44.70 | 3.0           | 17.80 | 7.1                  | 6.2  |
| Hallertau/Au . . . . .          | 16.7                         | 13.3          | 79.60 | 6.1       | 36.60 | 7.2                                | 43.00 | 3.4           | 20.40 | 6.9                  | 6.0  |
| Hallertau/Mainburg . . . . .    | 16.6                         | 13.8          | 83.30 | 6.4       | 38.60 | 7.4                                | 44.70 | 2.8           | 16.70 | 7.2                  | 6.2  |
| Hallertau/Wolnzach . . . . .    | 16.8                         | 14.0          | 83.15 | 6.5       | 38.40 | 7.5                                | 44.75 | 2.8           | 16.85 | 7.3                  | 6.5  |
| Hallertau/Barth-Nordbr. . . . . | 21.4                         | 18.1          | 84.40 | 10.6      | 49.40 | 7.5                                | 35.00 | 3.3           | 15.60 | 11.4                 | 11.0 |
| Spalt . . . . .                 | 15.7                         | 13.0          | 82.80 | 5.7       | 36.20 | 7.3                                | 46.60 | 2.7           | 17.20 | 6.5                  | 6.6  |
| Tettwang . . . . .              | 15.9                         | 13.4          | 84.20 | 5.9       | 37.60 | 7.4                                | 46.60 | 2.5           | 15.80 | 6.7                  | 6.8  |
| Hersbruck . . . . .             | 16.2                         | 13.4          | 83.00 | 5.8       | 36.30 | 7.6                                | 46.70 | 2.7           | 17.00 | 6.6                  | 6.1  |
| Alsace . . . . .                | 17.6                         | 15.0          | 85.05 | 6.5       | 36.85 | 8.5                                | 48.20 | 2.6           | 14.95 | 7.4                  | 8.3  |
| Belgium/Brewers-Gold . . . . .  | 17.1                         | 13.9          | 81.90 | 7.5       | 44.20 | 6.4                                | 37.70 | 3.1           | 18.10 | 8.2                  | 8.7  |
| Saaz . . . . .                  | 14.1                         | 11.9          | 84.05 | 5.0       | 35.55 | 6.9                                | 48.50 | 2.3           | 15.95 | 5.8                  | 5.6  |
| Jugoslavia/Styria . . . . .     | 14.3                         | 12.2          | 85.45 | 6.7       | 46.60 | 5.5                                | 38.85 | 2.1           | 14.55 | 7.3                  | 7.6  |
| Jugoslavia/Backa . . . . .      | 17.1                         | 14.2          | 83.30 | 6.2       | 36.20 | 8.1                                | 47.10 | 2.8           | 16.70 | 7.1                  | 7.8  |
| Yakima Seedless . . . . .       | 18.5                         | 15.2          | 82.70 | 7.9       | 43.00 | 7.3                                | 39.70 | 3.2           | 17.30 | 8.7                  | 8.8  |

The figures of the above table refer to bitter value (dry basis, alpha evaluated conductometrically) only in the beginning of the season and will not hold good for the judgement of supplies in the later part of the year.

## Acreage, Yield and Production 1966 and 1967

|                                 | Acreage<br>1966<br>Acres | Yield<br>Pounds<br>per acre | Production<br>1966<br>Pounds | Acreage<br>1967<br>Acres | Yield<br>Pounds<br>per acre | Production<br>1967<br>Pounds |
|---------------------------------|--------------------------|-----------------------------|------------------------------|--------------------------|-----------------------------|------------------------------|
| Hallertau . . . . .             | 20,440                   | 1,423                       | 29,078,012                   | 21,750                   | 1,771                       | 38,524,613                   |
| Spalt . . . . .                 | 2,595                    | 1,371                       | 3,558,555                    | 2,582                    | 1,460                       | 3,769,645                    |
| Hersbruck . . . . .             | 1,181                    | 1,199                       | 1,414,692                    | 1,149                    | 1,411                       | 1,621,373                    |
| Jura . . . . .                  | 593                      | 1,326                       | 786,491                      | 652                      | 1,690                       | 1,102,300                    |
| Bavaria . . . . .               | 24,809                   | 1,404                       | 34,837,750                   | 26,133                   | 1,722                       | 45,017,931                   |
| Tettwang . . . . .              | 2,108                    | 1,493                       | 3,147,507                    | 2,258                    | 1,736                       | 3,919,338                    |
| Wurttemberg . . . . .           | 143                      | 1,433                       | 204,917                      | 123                      | 1,079                       | 132,717                      |
| Baden . . . . .                 | 59                       | 1,612                       | 95,129                       | 59                       | 1,233                       | 72,752                       |
| Rheinpfalz . . . . .            | 52                       | 1,187                       | 61,729                       | 52                       | 1,026                       | 53,351                       |
| <b>Germany West . . . . .</b>   | <b>27,171</b>            | <b>1,411</b>                | <b>38,347,032</b>            | <b>28,625</b>            | <b>1,718</b>                | <b>49,196,089**)</b>         |
| <b>Germany East . . . . .</b>   | <b>5,295</b>             | <b>1,150</b>                | <b>6,089,105</b>             | <b>5,318</b>             | <b>1,234</b>                | <b>6,563,314</b>             |
| Saaz (Zatec) . . . . .          | 16,902                   | 935                         | 15,797,612                   | 17,025                   | 715                         | 12,172,258                   |
| Auscha (Ustek) . . . . .        | 3,632                    | 995                         | 3,613,339                    | 3,583                    | 705                         | 2,525,369                    |
| Other Districts . . . . .       | 1,137                    | 841                         | 1,001,440                    | 1,297                    | 1,085                       | 1,406,976                    |
| <b>Czechoslovakia . . . . .</b> | <b>21,671</b>            | <b>942</b>                  | <b>20,412,391</b>            | <b>21,905</b>            | <b>735</b>                  | <b>16,104,603</b>            |
| Alsace . . . . .                | 2,471                    | 1,842                       | 4,550,625                    | 2,520                    | 1,392                       | 3,508,841                    |
| Burgundy . . . . .              | 217                      | 1,340                       | 290,787                      | 222                      | 1,234                       | 273,921                      |
| Flandres . . . . .              | 539                      | 1,480                       | 797,955                      | 544                      | 1,722                       | 936,955                      |
| <b>France . . . . .</b>         | <b>3,227</b>             | <b>1,758</b>                | <b>5,639,367</b>             | <b>3,286</b>             | <b>1,436</b>                | <b>4,719,717</b>             |
| Alost . . . . .                 | 927                      | 1,474                       | 1,366,852                    | 927                      | 1,653                       | 1,532,197                    |
| Poperinge . . . . .             | 1,668                    | 1,520                       | 2,535,290                    | 1,630                    | 1,805                       | 2,941,708                    |
| Vodelée . . . . .               | 79                       | 1,116                       | 88,184                       | 79                       | 1,116                       | 88,184                       |
| <b>Belgium . . . . .</b>        | <b>2,674</b>             | <b>1,492</b>                | <b>3,990,326</b>             | <b>2,636</b>             | <b>1,730</b>                | <b>4,562,089</b>             |
| Slovenia . . . . .              | 5,421                    | 1,253                       | 6,796,782                    | 6,042                    | 1,102                       | 6,656,349                    |
| Backa . . . . .                 | 3,657                    | 1,326                       | 4,850,120                    | 3,771                    | 1,374                       | 5,180,810                    |
| <b>Jugoslavia . . . . .</b>     | <b>9,078</b>             | <b>1,229</b>                | <b>11,646,902</b>            | <b>9,813</b>             | <b>1,206</b>                | <b>11,837,159</b>            |
| Austria . . . . .               | 286                      | 1,202                       | 343,697                      | 267                      | 1,177                       | 314,266                      |
| Gallicia . . . . .              | 487                      | 487                         | 237,325                      | 425                      | 419                         | 178,242                      |
| León . . . . .                  | 1,950                    | 1,156                       | 2,254,424                    | 1,826                    | 1,174                       | 2,144,084                    |
| Cantábrica . . . . .            | 445                      | 576                         | 256,285                      | 346                      | 789                         | 273,150                      |
| <b>Spain . . . . .</b>          | <b>2,882</b>             | <b>954</b>                  | <b>2,748,034</b>             | <b>2,597</b>             | <b>999</b>                  | <b>2,595,476</b>             |
| Switzerland . . . . .           | 32                       | 1,378                       | 44,092                       | 32                       | 1,481                       | 47,399                       |
| Roumania . . . . .              | 1,977                    | 624                         | 1,234,576                    | 1,977                    | 624                         | 1,234,576                    |
| Bulgaria . . . . .              | 2,891                    | 467                         | 1,349,215                    | 2,891                    | 428                         | 1,236,780                    |
| Hungary . . . . .               | 1,730                    | 543                         | 959,002                      | 1,730                    | 712                         | 1,232,261                    |
| Poland . . . . .                | 5,263                    | 865                         | 4,552,499                    | 5,140                    | 1,006                       | 5,169,787                    |
| USSR . . . . .                  | 29,652                   | 520                         | 15,432,200                   | 29,652                   | 520                         | 15,432,200                   |
| <b>Continent . . . . .</b>      | <b>113,829</b>           | <b>991</b>                  | <b>112,788,438</b>           | <b>115,870</b>           | <b>1,038</b>                | <b>120,245,716</b>           |
| Kent . . . . .                  | 10,976                   | 1,268                       | 13,914,994                   | 10,240                   | 1,267                       | 12,974,071                   |
| Hants . . . . .                 | 642                      | 1,394                       | 894,957                      | 618                      | 1,447                       | 894,626                      |
| Surrey . . . . .                | 93                       | 1,181                       | 111,001                      | 89                       | 1,242                       | 110,560                      |
| Sussex . . . . .                | 1,752                    | 1,181                       | 2,068,907                    | 1,643                    | 1,192                       | 1,958,126                    |
| Hereford . . . . .              | 4,655                    | 1,246                       | 5,802,176                    | 4,514                    | 1,223                       | 5,521,972                    |
| Worcester . . . . .             | 2,125                    | 1,305                       | 2,772,174                    | 2,048                    | 1,281                       | 2,623,694                    |
| Other Counties . . . . .        | 59                       | 1,248                       | 73,634                       | —                        | —                           | —                            |
| <b>England . . . . .</b>        | <b>20,302</b>            | <b>1,263</b>                | <b>25,637,843</b>            | <b>19,152</b>            | <b>1,257</b>                | <b>24,083,049</b>            |
| <b>Europe . . . . .</b>         | <b>134,131</b>           | <b>1,032</b>                | <b>138,426,281</b>           | <b>135,022</b>           | <b>1,069</b>                | <b>144,328,765</b>           |
| Washington . . . . .            | 20,699                   | 1,790                       | 37,052,933                   | 19,400                   | 1,660                       | 32,204,025                   |
| Oregon . . . . .                | 5,001                    | 1,430                       | 7,149,959                    | 4,900                    | 1,490                       | 7,300,974                    |
| California . . . . .            | 2,501                    | 1,589                       | 3,975,004                    | 1,799                    | 1,941                       | 3,491,976                    |
| Idaho . . . . .                 | 4,001                    | 1,810                       | 7,239,906                    | 3,600                    | 1,810                       | 6,516,026                    |
| <b>U.S.A. . . . .</b>           | <b>32,202</b>            | <b>1,721</b>                | <b>55,417,802</b>            | <b>29,699</b>            | <b>1,667</b>                | <b>49,513,001</b>            |
| <b>Canada . . . . .</b>         | <b>1,035</b>             | <b>1,723</b>                | <b>1,782,970</b>             | <b>951</b>               | <b>1,632</b>                | <b>1,552,038</b>             |
| Victoria . . . . .              | 600                      | 1,231                       | 738,541                      | 600                      | 1,120                       | 672,403                      |
| Tasmania . . . . .              | 1,574                    | 1,947                       | 3,064,394                    | 1,574                    | 1,730                       | 2,723,232                    |
| <b>Australia . . . . .</b>      | <b>2,174</b>             | <b>1,749</b>                | <b>3,802,935</b>             | <b>2,174</b>             | <b>1,562</b>                | <b>3,395,635</b>             |
| New Zealand . . . . .           | 665                      | 1,579                       | 1,049,941                    | 665                      | 1,579                       | 1,049,941                    |
| Japan . . . . .                 | 4,658                    | 1,473                       | 6,864,022                    | 4,610                    | 1,527                       | 7,039,288                    |
| Manchuria . . . . .             | 247                      | 402                         | 99,207*)                     | 247                      | 402                         | 99,207*)                     |
| Northern-Korea . . . . .        | 1,235                    | 143                         | 176,368*)                    | 1,235                    | 143                         | 176,368*)                    |
| Argentina . . . . .             | 316                      | 732                         | 231,483                      | 316                      | 802                         | 253,529                      |
| South Africa . . . . .          | 279                      | 713                         | 198,965                      | 259                      | 400                         | 103,616                      |
| <b>Total . . . . .</b>          | <b>176,942</b>           | <b>1,176</b>                | <b>208,049,974</b>           | <b>175,182</b>           | <b>1,184</b>                | <b>207,511,388</b>           |

\*) Estimate

\*\*) Official Weight May 13th, 1968

On account of the dominating favourable climatic conditions during the formation of the cones and the ripening of the hops, a very good crop especially in respect to the bitter value was expected. The analyses, however, showed within the hop growing districts varying results. The average figures in the above table show, that the alpha content of crop 1967 was slightly below those of last year. The only exception, however, were Hallertau hops which had a somewhat higher content of lupulin. The relative early disintegration of the soft resins of crop 1967 is to be noticed not only by European, but also by American hops.

The weather conditions in 1967 were unfavourable until mid-June and did not promise any special expectations with regard to the forthcoming crop. The fine summer weather lasting until late October, however, stimulated a luxurious growth of the hops resulting in a large yield.

The hops came well through the mild winter 1966/67. Cold and rainy weather in March retarded **Spring Work**. Damages by moisture on the rhizomes were to be noticed on heavy soils. Further development of the shoots was hampered by changeable and cool weather at the end of April. Slowly rising temperatures during the beginning of May favoured the growth of the young bines. Preventive sprayings against **Downy Mildew** were effected in all growing districts.

Ample precipitations and low temperatures in the first half of June were unfavourable again for the growth of the plants. Starting with June 20th, weather conditions changed completely. A summer with a lot of sunshine and abundant rainfalls brought **Ideal Growing Conditions**. The hop yards developed well and the plants reached the height of the trellises in general at the beginning of July. The plants showed numerous **Laterals**. Mid-July the hop yards were in **Full Bloom**. Sprayings against Downy Mildew and Aphids had to be carefully effected.

**Hailstorms** on July 20th and 22nd, caused bad damages in several districts. At the beginning of August the development of the hops advanced rapidly. Favourable weather conditions benefited especially since the middle of August the development of the cones and the **Ripening** of the hops, indicating a qualitative and quantitative good crop.

**Picking** started generally on August 28th and was finished around mid-September under excellent weather conditions.

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

| 1967  | March | April | May  | June | July | August | Sept. |
|---|-------|-------|------|------|------|--------|-------|
| Precipitations per month (mm)               | 68    | 32    | 80   | 109  | 73   | 103    | 134   |
| Monthly average of air temperature °Celsius | 4.5   | 6.1   | 12.3 | 14.5 | 18.8 | 16.1   | 13.1  |
| Maxima of air temperature °Celsius          | 18.6  | 19.6  | 26.1 | 31.9 | 32.1 | 31.0   | 27.8  |
| Minima of air temperature °Celsius          | — 3.8 | — 5.2 | 0.8  | 2.2  | 6.1  | 5.2    | 2.1   |
| Monthly average of relative humidity %      | 83    | 76    | 75   | 77   | 73   | 78     | 85    |

**HALLERTAUE**. Climatic conditions especially in this district were favourable for the growing of the hops and the ripening of the cones. This in turn improved the quality of the hops. A heavy **Hailstorm**, which struck the Southern part of the Hallertau on July 22nd, caused a loss of approx. 20,000 cwts. of hops. As a consequence of the hot weather only small losses occurred through **Downy Mildew** and **Verticillium Wilt** contrary to last year. Special attention, of course, was necessary to control attacks by **Aphids** and **Red Spider**.

**Quality**. Hallertau hops, crop 1967 had middling size cones of green colour with occasional wind whipping. Light lupulin of fine aroma was generally amply present. The bittering value was somewhat higher than in the year before. The kilning of the hops was very good, partly as a consequence of the fine weather conditions during the harvest. The picking of the hops gave reason for complaints in some cases only.

**SPALT**. Wet and cold weather in May and June delayed the growth of the hops. That loss of development was not only offset by high temperatures and precipitations in August, but also did benefit the further development of the hops and the formation of the cones. Apart from a few local damages by high winds the yards showed a healthy stand, although the growth of the plants was unequal in different locations. A strong appearance of **Aphids** and **Red Spider** had to be controlled by intensive sprayings.

**Quality.** The cones of Spalt hops showed a relatively unequal growth of yellowish-green colour with occasional wind whipping. The light lupulin had a fine and mild aroma. There were still some complaints about content of waste from the picking machines, but in general a considerable improvement was to be noticed.

**TETTANG.** This district was also struck by **Hail** on July 20th. The originated damage in the hop yards was estimated to approx. 3—4,000 cwts. High temperatures and abundant rainfalls at the end of July and the beginning of August benefited the growth of the hops, so that most of the hop yards, damaged by hail could recover to a certain extent. This reduced the originally caused damage to about one third (1,200 cwts.). Obstinate attacks by **Aphids** and **Red Spider** were successfully controlled.

**Quality.** Tettang hops, crop 1967 had equal cones of green-yellowish colour. The lupulin had a fine and mild aroma, but the bitter value was somewhat lower than the year before. The drying of the hops was satisfactory, the machine picking, however, ought to be still improved.

**HERSBRUCK GEBIRGE.** Cold weather conditions at the end of May until mid-June retarded the development of the hops in this district. The plants reached half of the height of the trellises in mid-June. In the second half of June summerly weather favoured the development of the plants and especially in the upper part of the vines vigorous **Laterals** were noticed. Mid-July, the hop yards showed an unequal aspect. Early varieties were in full bloom at this time, whereas late varieties started to bloom at the end of July. On July 20th **Hail** and **Storms** caused local damages. **Downy Mildew** and particularly a strong evidence of **Aphids** had to be controlled. Sufficient rainfalls in August brought the necessary moisture for a good formation of the cones of early varieties. **Picking** started at the end of August.

**Quality.** Gebirg hops of crop 1967 had unequal cones of middling size and yellowish green colour, occasionally with blemishes and wind whipping. Kilning and also the picking of the hops was much more improved as against the year before.

**Crop Estimate  
1967**

The official estimate of the German crop took place from August 22nd — August 28th, 1967, and resulted in the following figures:

|                             | Yield estimated<br>1967<br>lbs. | Yield weighed<br>on May 13th, 1968<br>lbs. |
|-----------------------------|---------------------------------|--|
| Hallertau . . . . .         | 32,517,850                      | 38,524,613                                 |
| Spalt . . . . .             | 3,417,130                       | 3,769,645                                  |
| Tettang . . . . .           | 3,251,785                       | 3,919,338                                  |
| Hersbruck Gebirge . . . . . | 1,543,220                       | 1,621,373                                  |
| Wurttemberg . . . . .       | 176,368                         | 132,717                                    |
| Jura . . . . .              | 881,840                         | 1,102,300                                  |
| Baden . . . . .             | 44,092                          | 72,752                                     |
| Rheinpfalz . . . . .        | 55,115                          | 53,351                                     |
|                             | 41,887,400                      | 49,196,089                                 |

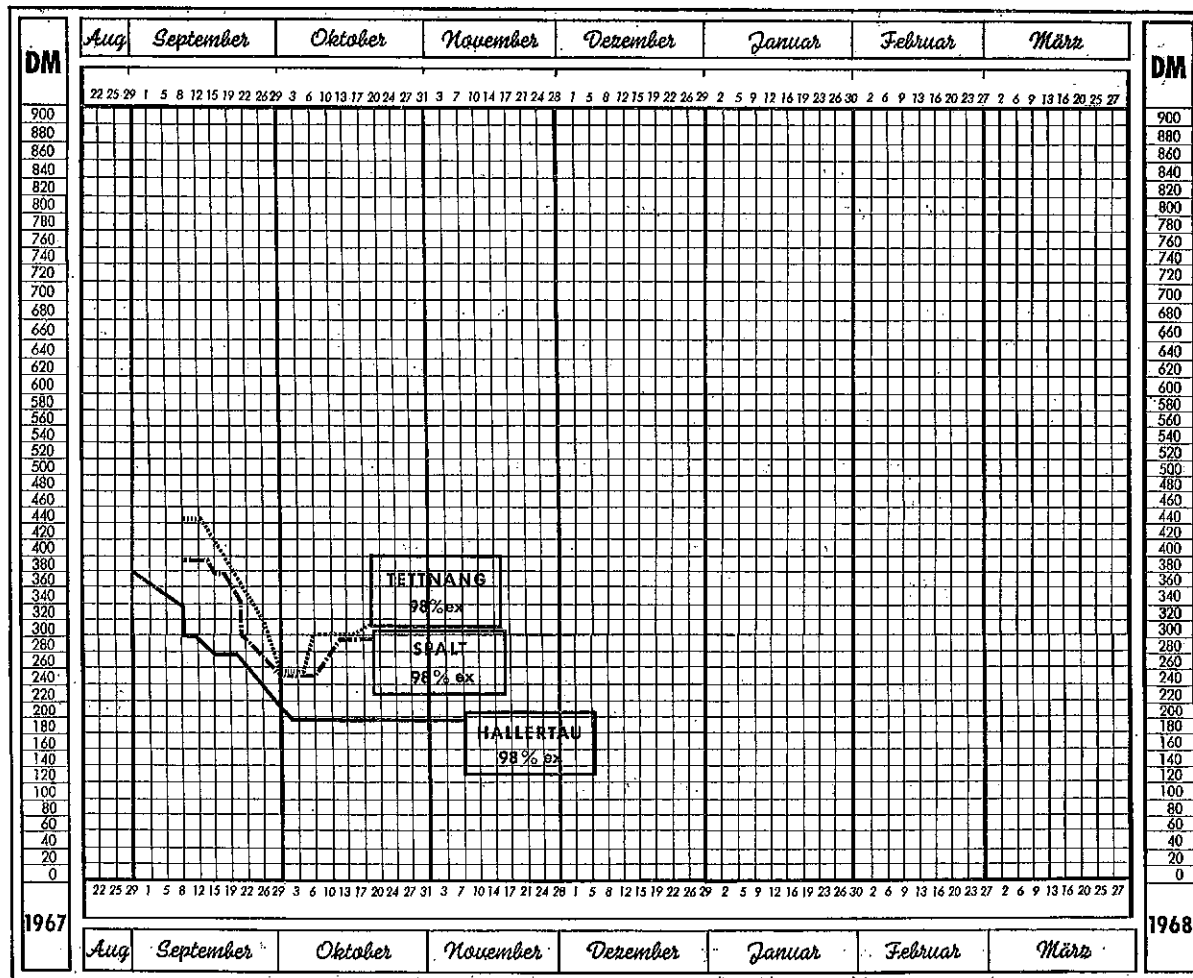
In the past two years it is especially noticeable that the figures of the real harvest do not correspond with the official estimate. It has to be pointed out, however, that the estimation of agricultural products is extremely difficult. Deviations of 10 % are absolutely within the range of a good estimate. Favourable climatic conditions in August until the end of the harvest contributed doubtless to the good yield of crop 1967. On this occasion it may be recalled, that in 1966 a second bloom disturbed the uniform formation of the cones. Whereas in 1967 the cones ripened well and in particular late picked hops profited from favourable weather conditions.

**Hop Purchase  
Crop 1967  
in Germany**

Under the impression of a crop 1967 expected to be above average in quantity, as well as in quality and slow demand because of the large inventories held by breweries, purchasing started only hesitatingly. Already at the beginning of purchases a strong baisse situation dominated, which was first of all limited to the German market.

By the end of September 1967, decreasing prices below production costs led to several demands of the Hop Growers Association by the **Bundesregierung** to stop further imports.

There was no legal way for such proceedings, as these would not have been without consequences to other branches of the German economy. Therefore this request could not be taken into consideration. As a compromise, a market stabilization action was proposed, in a way that 10,000 cwts. of hops at a price of DM 300.— per cwt. should be taken out of the market. For this purpose the Government held out a prospect of DM 950,000.—. At the same time German hop dealers gave a limited guarantee to buy these hops at a fixed price. On account of this, business activities stopped nearly completely. As the necessary funds had not yet been granted on October 20th, active trading started again in the Hallertau. By this time the other districts were nearly sold out.



**HALLERTAU.** Already a few days after picking had started, first official weighings showed a large increase of this crop in spite of considerable damage by hail. Several small purchases were effected on August 31st, 1967. Quotations decreased on account of an ample supply. Prices took the following development:

|    | 8/31  | 9/4   | 9/5   | 9/6   | 9/7   | 9/14  | 9/25/26 | 9/27/28     |
|----|-------|-------|-------|-------|-------|-------|---------|-------------|
| DM | 380.— | 360.— | 350.— | 320.— | 300.— | 280.— | 250.—   | 210.—/200.— |

In expectation of the prospected price supply for the German hop market farmers showed a noticeable waiting attitude at the beginning of October 1967, expecting the result of the governmental decision. For a few sales in the following days DM 240.—/250.— were paid and some business was even effected at DM 300.—.

After October 20th, 1967 active trading was noticed again. Prices were offered between DM 200.— and DM 220.—, dropped finally to DM 200.—. On this basis the district was sold out by the end of November with the exception of small remaining lots. For last best available hops DM 225.—/230.— were paid.

**SPALT.** In this district purchasing started somewhat later than in the Hallertau. The Spalt market went immediately into the suction of the Hallertau-Baisse and prices decreased as follows:

|    | 9/12        | 9/20  | 9/25        | 9/26  |
|----|-------------|-------|-------------|-------|
| DM | 410.—/400.— | 380.— | 320.—/300.— | 250.— |

During the expected price supply the market remained quiet and prices recovered at DM 300.—. As it appeared that the necessary funds would not be granted, prices went down to the former level of DM 250.—. By the end of November this district was almost sold out.

**TETTANG.** First purchases were done on September 8th, 1967, at DM 450.—. On this basis the market remained for some time, following the tendency of the market in the other districts.

|    | 9/8   | 9/14  | 9/15  | 9/18        | 9/26  | 9/27  |
|----|-------|-------|-------|-------------|-------|-------|
| DM | 450.— | 430.— | 420.— | 400.—/380.— | 300.— | 250.— |

Despite of these disappointing prices farmers were willing to sell their hops, so that this district was already sold out to a considerable extent at the beginning of October and final quantities went into second hand at occasional higher prices. Quotations were between DM 270.— and DM 300.—. The slight recovery of prices during the purchasing stop could not affect the district of Tettang.

**HERSBRUCK GEBIRGE.** At the beginning of trading a strong baisse was also noticed on this market. Prices developed as follows:

|    | 9/5   | 9/7   | 9/11        | 9/19/20     | 9/26/27 |
|----|-------|-------|-------------|-------------|---------|
| DM | 320.— | 280.— | 270.—/260.— | 260.—/240.— | 200.—   |

During the first week of October a rising demand appeared which strongly benefited the sell out of this district. Remaining lots were sold around January 20th, 1968 at DM 150.—/160.—.

All quotations as mentioned above refer to hops ex stocks of producers.

## Nürnberg Market

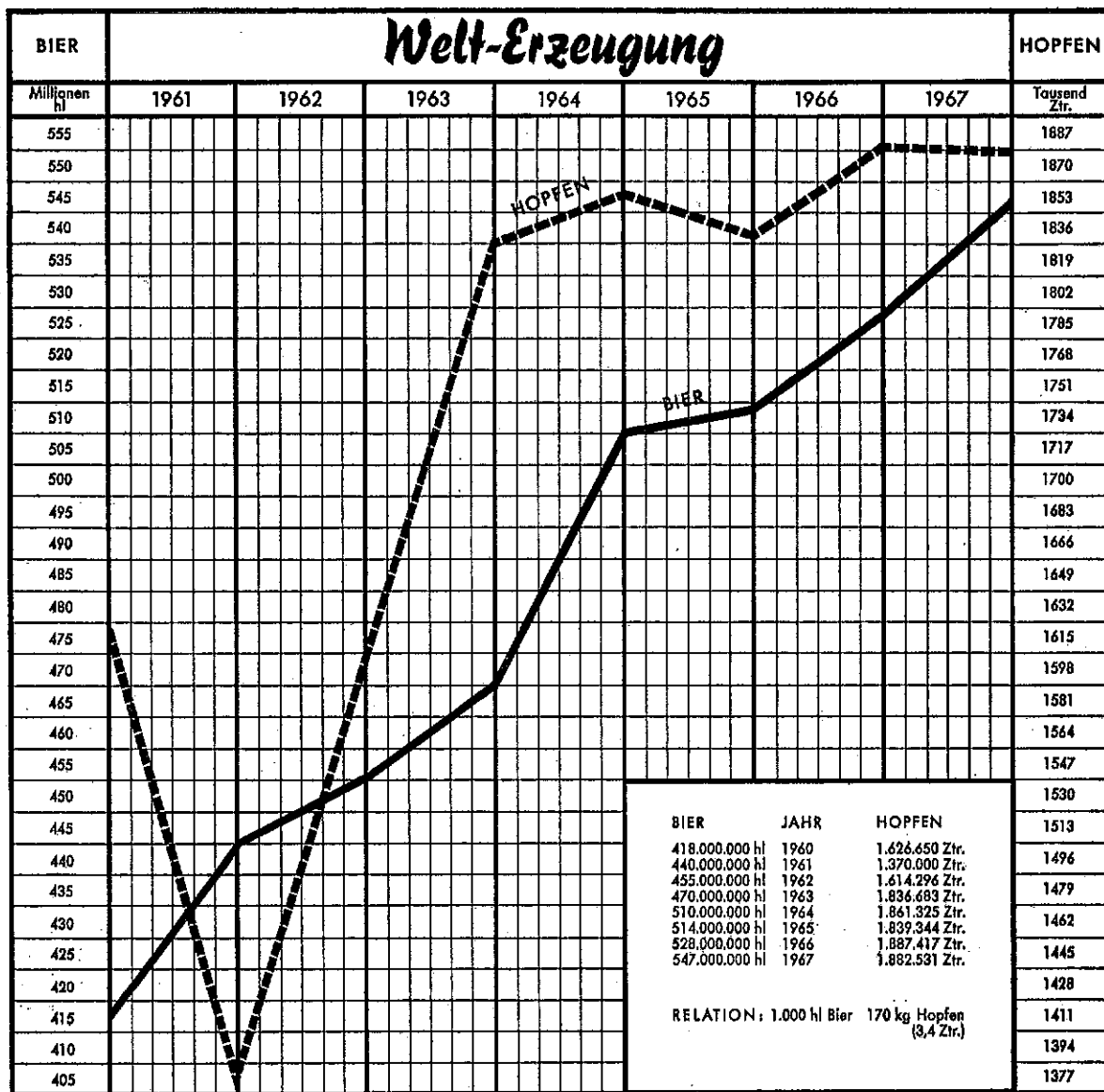
As a result of ample and reasonable quotations at the districts of production, transaction on the Nürnberg Market remained unimportant in the first third of September. About the middle of the month some interest for all provenances were noticed which, however, slowed down by the end of September; until the 20th of October 1967 trading remained slow. Afterwards active business was noticed. The development of the prices was as follows:

| Date    | Hallertau      | Spalt       | Tettang     | Hersbruck   |
|---------|----------------|-------------|-------------|-------------|
| 9/4—8   | DM 400.—/350.— | 500.—       | —           | —           |
| 9/12/13 | 350.—/340.—    | 450.—       | 500.—       | 300.—       |
| 9/22    | 335.—/315.—    | 450.—/410.— | 450.—       | 295.—/280.— |
| 9/29    | 260.—          | 300.—/310.— | 320.—       | 250.—       |
| 10/6    | 280.—          | 310.—       | 365.—       | 250.—       |
| 10/13   | 270.—/290.—    | 330.—/340.— | 365.—/370.— | 250.—       |
| 10/20   | 270.—/285.—    | 330.—       | 360.—       | 240.—/250.— |
| 10/27   | 250.—          | —           | —           | —           |
| 11/3    | 250.—          | 310.—/300.— | 350.—       | 220.—       |

In as much as purchase activities began to slow down in the districts of production on account of a progressive sell out, transactions on the Nürnberg Market started to increase especially for Hallertau hops.

By the end of November it was not always possible to satisfy the demand in this provenance. Prices started to rise slightly.





According to business transaction on December 31st, 1967, the current market prices for the relief of inventories from former turnover tax, were as follows:

|           |                |
|-----------|----------------|
| Hallertau | DM 295.—/300.— |
| Spalt     | DM 310.—       |
| Tett nang | DM 360.—       |
| Hersbruck | DM 230.—       |

Until this date the above mentioned prices included a cumulative turnover tax of 1%.

With the change over to Added Value Tax all quotations from January 1st, 1968, became net prices, resulting in the following quotations for domestic-transactions in the first ten days of the new year:

|                              |                |
|------------------------------|----------------|
| Hallertau and main districts | DM 290.—/300.— |
| Spalt                        | DM 295.—/310.— |
| Tett nang                    | DM 340.—       |

In February and March 1968 remaining stocks of low quality hops were completely sold out on a price basis of DM 170.—/190.—. First qualities were priced by the end of March as follows:

|           |                |
|-----------|----------------|
| Hallertau | DM 270.—/275.— |
| Spalt     | DM 305.—/315.— |
| Hersbruck | DM 230.—/240.— |

**German Hop Acreage 1967**

Verification of the hop acreage in 1967, resulted in the following figures:

| Districts                         | 1939 Acreage acres | 1967                |                       |               |
|-----------------------------------|--------------------|---------------------|-----------------------|---------------|
|                                   |                    | Existing acr. acres | Additional acr. acres | Total acres   |
| Hallertau . . . . .               | 11,317             | 20,124              | 1,626                 | 21,750        |
| Spalt . . . . .                   | 2,276              | 2,461               | 121                   | 2,582         |
| Hersbruck . . . . .               | 2,118              | 1,095               | 54                    | 1,149         |
| Jura . . . . .                    | 200                | 595                 | 57                    | 652           |
| Tettang*) . . . . .               | —                  | 27                  | —                     | 27            |
| Aischgrund/oth. distr. . . . .    | 200                | 7                   | —                     | 7             |
| <b>Bavaria . . . . .</b>          | <b>16,111</b>      | <b>24,309</b>       | <b>1,858</b>          | <b>26,167</b> |
| Wurtemberg . . . . .              | 1,223              | 116                 | 7                     | 123           |
| Tettang**) . . . . .              | 1,636              | 2,095               | 163                   | 2,258         |
| Baden . . . . .                   | 440                | 59                  | —                     | 59            |
| <b>Baden-Wurtemberg . . . . .</b> | <b>3,299</b>       | <b>2,270</b>        | <b>170</b>            | <b>2,440</b>  |
| Pfalz . . . . .                   | 151                | 52                  | —                     | 52            |
| Rheinland-Pfalz . . . . .         | 151                | 52                  | —                     | 52            |
| <b>Germany . . . . .</b>          | <b>19,561</b>      | <b>26,631</b>       | <b>2,028</b>          | <b>28,659</b> |

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

**Quality of German Hops Crop 1967**

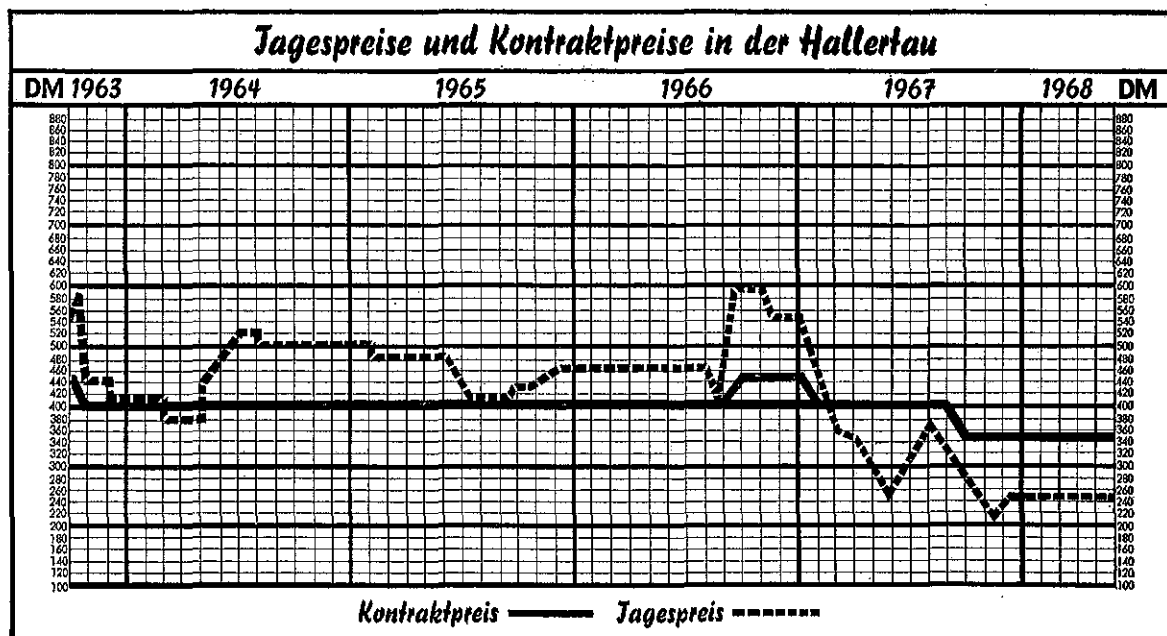
The quality of the German crop 1967 has considerably improved not only in kilning, but also in picking against the previous years. It can be assumed that farmers, expecting a record production of hops, attended already at the beginning to a good quality of the crop. Nevertheless this fact has to be considered a progress. It should be pointed out that producers keep up their efforts to obtain the production of quality hops to improve still some existing deficiencies.

**German Hop Business Agreement 1967 (D.H.G.V.)**

The German Hop Business Agreement (D. H. V. G.) concluded in 1966, became effective again for an unlimited period on August 1967 including some insignificant changes. For the first time since its existence, the Board of Arbitration had to deal with many claims. Due to the fast settlement buyers and producers could avoid in most cases legal proceedings. There are negotiations between the German Hop Planters Association and the Association of Hop Merchants to discuss further improvements of the D. H. V. G. utilizing the experiences made during the last season.

**Forwarding Contracts**

In 1968 forwarding contract business did celebrate its tenth anniversary on the German hop market. Calculation of the average prices results, because of the initiation of the forward contracts, in a cheaper purchase price than prior to 1958. On the other hand the forwarding contract business at fixed prices has relieved the producer in advance from the market risks. This advantage was especially noticeable in 1967, when the daily quotations were considerably below the prices for future contracts.



In the trend of conformity of the turnover tax law to a future uniform legislation of the Common Market, the German Federal Republic initiated the added value tax effective from January 1st, 1968. The adjustment to the new system carried with it in part a considerable burden for the German economy, because in spite of timely publication of the provisions of the law, the necessary administrative regulations were not yet known.

For the **German Hop Economy** primarily two questions raised difficulties:

1. Tax exemption of inventories on December 31st, 1967
2. The adjustment of long lasting contracts signed prior to October 1st, 1967, to net prices.

In most cases the revenue department took the position that the inventories are not to be valued at the purchase price, but at the market price in effect on December 31st, 1967, which obviously was to the disadvantage of the hop-owner.

From these market prices 6 % of merchandise not worked on in own enterprises and 3 % of merchandise worked on were to exempt. The resulting prices were the new net prices to which on re-sale, the added value tax had to be added. This procedure was generally followed without friction.

Already for the past forty years **Hop Extract** has been produced in Germany and been used in the beer brewing. For this, of course, special permits had to be requested, which could be apportioned to the individual producers of extract for their production. The state of Bavaria, however, adhered to the position that the hop extract did not meet the Purity Law, as a result of which its use was not permitted.

Since a few years, **Hop Powder** has become of increasing interest to the brewing industry, as an additional hop product. This means pulverized hops, either in its original composition, or through removal of part of the leaves and stems, enriched hop powder. The use of this hop powder was also permitted in Bavaria.

The second amendment to the **Beer Tax Law**, as published in the Federal Law Journal No. 28 of May 15th, 1968, now permits the use of hop powder and hop extract in the brewing of beer in the Federal Republic of Germany including Bavaria, provided that the products are made exclusively out of hops. **Hop Extracts** must conform to the standards of the food laws and may only be added before or during the boiling of the wort.

The refining of hops, that is the manufacture of hop products, has taken on a considerable extent in Germany as can be seen from the following import and export statistics.

| Export of Hop Extracts              |               |                     |                  |
|-------------------------------------|---------------|---------------------|------------------|
|                                     | Total In lbs. | Percentage of Total |                  |
|                                     |               | German Export       | Export "in bond" |
| 1965<br>9/1/65 — 8/31/66            | 1,257,074     | 28.55 %             | 71.45 %          |
| 1966<br>9/1/66 — 8/31/67            | 1,704,817     | 25.75 %             | 74.25 %          |
| 1967 (7 months)<br>9/1/67 — 3/31/68 | 988,984       | 33.57 %             | 66.43 %          |

In the **Export of Hop Extract** the use of foreign hops continues to be predominant. Because the trade number in the Brussels Nomenclature is identical for hops and hop powder, a statistical determination of both merchandises, howsoever desirable it might be, is unfortunately not possible.

In the time from September 1st, 1967 until March 31st, 1968, hops were imported as follows:

| Country                      | Domestic Consumpt. | Refinement transit | Country                   | Domestic Consumpt. | Refinement transit |
|------------------------------|--------------------|--------------------|---------------------------|--------------------|--------------------|
|                              | lbs.               | lbs.               |                           | lbs.               | lbs.               |
| U. S. A. . . . .             | 1,960,551          | 672,623            | b. f. . . . .             | 4,701,089          | 3,672,202          |
| Jugoslavia . . . . .         | 1,370,379          | 1,020,730          | Spain . . . . .           | —                  | 229,940            |
| Czechoslovakia . . . . .     | 962,969            | 636,468            | Poland . . . . .          | —                  | 73,413             |
| Belgium-Luxembourg . . . . . | 228,176            | 660,498            | Austria . . . . .         | 54,454             | —                  |
| France . . . . .             | 179,014            | 681,883            | Other Countries . . . . . | 6,173              | 7,055              |
| c. f. . . . .                | 4,701,089          | 3,672,202          | Total . . . . .           | 4,761,716          | 3,982,610          |

German hop imports crop 1966 until March 31st, 1967 = 7,252,032 lbs.

Total German Imports from 9/1/1967 to 3/31/68

|                     |                     |
|---------------------|---------------------|
| amounting to        | 79,328 cwts.        |
| Less Refinement Use | 36,130 cwts.        |
| Domestic Use        | <u>43,198 cwts.</u> |

A comparison of these figures with the same period of the past year, shows a decrease of imports for domestic use of about 35 %, while imports of hops for refinement only decreased about 15 %. This, as well as the 35 % increased export of German hops during the same period, is the result of the ability to compete with world market prices.

**Exports of German Hops and Extracts Crop 1967**

| <b>Export of German Hops and Extracts Crop 1967</b> |                  |                |                                |                   |                |
|---|------------------|----------------|--------------------------------|-------------------|----------------|
| September 1st, 1967 — March 31st, 1968              |                  |                |                                |                   |                |
| Country   | Hops lbs.        | Extract lbs.   | Country                        | Hops lbs.         | Extract lbs.   |
| France . . . . .                                    | 1,344,365        | 245,372        | b. f. . . . .                  | 13,581,987        | 867,288        |
| Italy . . . . .                                     | 977,299          | 159,613        | Algeria . . . . .              | 42,328            | —              |
| Austria . . . . .                                   | 707,456          | 94,577         | Madagascar . . . . .           | 28,660            | —              |
| Belgium . . . . .                                   | 684,969          | 37,699         | Nigeria . . . . .              | 26,455            | 25,132         |
| Sweden . . . . .                                    | 654,325          | 19,841         | Rep. of South Africa . . . . . | 24,471            | 16,975         |
| Switzerland . . . . .                               | 484,571          | 77,161         | Morocco . . . . .              | 24,251            | —              |
| Denmark . . . . .                                   | 442,243          | 2,866          | Sudan . . . . .                | 22,046            | —              |
| Netherlands . . . . .                               | 311,730          | 2,425          | Mozambique . . . . .           | 17,637            | —              |
| Czechoslovakia . . . . .                            | 300,266          | —              | Dahomey . . . . .              | 17,637            | —              |
| Finland . . . . .                                   | 286,818          | 38,801         | Tanzania . . . . .             | 12,125            | 3,527          |
| Great Britain . . . . .                             | 244,490          | 54,674         | Central Afric. Rep. . . . .    | 11,023            | —              |
| Norway . . . . .                                    | 223,216          | 2,866          | Ghana . . . . .                | 11,023            | 2,205          |
| Spain . . . . .                                     | 212,744          | —              | Ivory Coast . . . . .          | 8,818             | 882            |
| Portugal . . . . .                                  | 167,329          | 77,381         | Togo . . . . .                 | 4,630             | 1,102          |
| Greece . . . . .                                    | 66,138           | 6,834          | Upper Volta . . . . .          | 3,307             | 3,307          |
| Malta . . . . .                                     | 6,393            | 1,323          | Cameroons . . . . .            | —                 | 3,527          |
| <b>Europe</b> . . . . .                             | <b>7,114,352</b> | <b>821,433</b> | Rhodesia . . . . .             | —                 | 2,646          |
| U.S.A. . . . .                                      | 5,667,586        | —              | Zambia . . . . .               | —                 | 1,984          |
| Brazil . . . . .                                    | 222,665          | 441            | Gabun . . . . .                | —                 | 1,984          |
| Argentina . . . . .                                 | 50,706           | 1,102          | <b>Africa</b> . . . . .        | <b>703,708</b>    | <b>71,650</b>  |
| Mexico . . . . .                                    | 15,432           | —              | Japan . . . . .                | 676,151           | 13,889         |
| Bolivia . . . . .                                   | 14,330           | 661            | Thailand . . . . .             | 212,523           | 1,102          |
| Dominican Republic . . . . .                        | 13,007           | —              | Philippine Isl. . . . .        | 206,791           | 19,180         |
| French Antilles . . . . .                           | 7,275            | —              | South-Korea . . . . .          | 90,168            | —              |
| Costa Rica . . . . .                                | 6,614            | —              | Vietnam . . . . .              | 64,154            | 11,023         |
| Panama Canalzone . . . . .                          | 6,614            | —              | Hongkong . . . . .             | 54,454            | —              |
| Uruguay . . . . .                                   | 6,614            | —              | Iran . . . . .                 | 41,887            | —              |
| Venezuela . . . . .                                 | 4,409            | 25,574         | Taiwan . . . . .               | 39,683            | —              |
| Peru . . . . .                                      | —                | 6,614          | Turkey . . . . .               | 33,069            | —              |
| Canada . . . . .                                    | 3,086            | 661            | Ceylon . . . . .               | 8,818             | 661            |
| Guadeloupe . . . . .                                | —                | 2,425          | Indonesia . . . . .            | —                 | 3,968          |
| <b>America</b> . . . . .                            | <b>6,018,338</b> | <b>37,478</b>  | Cambodia . . . . .             | —                 | 3,527          |
| Congo-Kinshasa . . . . .                            | 135,142          | 661            | Lebanon . . . . .              | 2,205             | —              |
| Canary Islands . . . . .                            | 108,025          | 2,205          | <b>Asia</b> . . . . .          | <b>1,429,903</b>  | <b>53,350</b>  |
| Kenya-Uganda . . . . .                              | 101,632          | 4,409          | French Pacific Isl. . . . .    | 9,700             | —              |
| Angola . . . . .                                    | 53,792           | —              | <b>Australia</b> . . . . .     | <b>9,700</b>      | <b>—</b>       |
| Ethiopia . . . . .                                  | 50,706           | 1,102          | Other Countries . . . . .      | 18,960            | 5,071          |
| c. f. . . . .                                       | 13,581,987       | 867,288        | <b>Total</b> . . . . .         | <b>15,294,961</b> | <b>988,984</b> |

German hop exports crop 1966 until March 31st, 1967 = 11,222,737 lbs.

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

**HOP MARKETING REGULATIONS.** Pursuant to the Ministry Council's schedule the organization of the hop market within the E. E. C. should become effective on July 1st, 1968. Appropriate recommendations were made for it to the Commission in Brussels by the professional organizations, participating in the hop business. At the moment, however, no marketing agreement is anticipated prior to July 1st, 1969.

Regarding this complex of problems, there is a far reaching accordance within the **Brewing Industry** and the **Hop Trade**. Forwarding contracts are considered sufficiently functioning instruments to secure the market. Desired, however, is a common law of provenance, including hop products, centralized statistics and concessions for the preference of hops, produced in the E. E. C.

On the other hand, the organization of the **Hop Growers** is guided by thoughts, aimed at price supports of the hop market. Besides a uniform law of provenance, the following measures are being proposed in order to secure cost-covering prices:

- a) A basic standard price is to be determined for Hallertau hops of a more closely to be fixed average quality, from which the corresponding standard prices of all other provenances are to be derived. Furthermore, intervention prices are provided to the extent of 90 % of the standard prices. The price support authorities in the several countries are

obligated to purchase the hops, offered to them at the intervention price and may not sell it below a minimum price, fixed each three months at 85 % of the average prices for hops, imported into the E. E. C. The difference between the intervention price and the minimum sales price is to be repaid by the guarantee fund of the E. E. C. Those purchasers, who signed contracts on the basis of standard prices and sold the hops after preparation, should receive a premium equal to the difference between the basic standard and the basic intervention price.

- b) The import from third countries should basically remain liberalized. A protection for products from the E. E. C. results from the common foreign tariff. The minimum tariff per cwt. of hops should amount to DM 50.—; for extracts corresponding minimum rates, depending on its concentration.
- c) In case of overproduction sales quotas are to be fixed for each hop producing country and if necessary, the hop production will have to be decreased. This requires a centralized statistical control of acreages, crop and inventories with the trade and the brewing industry.

A realization of this proposal would not only demand considerable costs, but also a complicated administrative apparatus. Since acreage regulations are not foreseen, the problem of overproduction remains unresolved.

**TARIFF UNION.** The general opinion is that upon cessation of the domestic tariffs within the E. E. C. the tariff union of the six member countries is completed. Domestic tariffs are being repealed on July 1st, 1968, only for industrial products and of such agricultural products for which there are market regulations already. This is, however, not applicable to some other merchandise including fish products, wine and **Hops, which remain burdened by the former Domestic Tariffs after July 1st, 1968, too.**

Furthermore the completion of the tariff union requires integration of tariff law regulations, repeal of limitations in merchandise trade, as well as a common policy in the area of tax harmonization, exports utilities, transportation etc.

**KENNEDY-ROUND.** As a result of the tariff negotiations for the GATT (General Agreement on Tariffs and Trade), the final version of which was signed on June 30th, 1967, the **Common Custom Tariff** for the E. E. C. becomes effective on July 1st, 1968. On that date, tariff concessions become effective in addition too within the E. E. C., in Denmark, Finland, Great Britain, Israel, Japan, Norway and Sweden. Pursuant to the report of the GATT-Secretariat the following countries already have started with tariff reductions on January 1st, 1968: Australia, Austria, Canada, Ireland, New Zealand, Portugal, South Africa, Switzerland and the U. S. A.

**CUSTOM TARIFFS.** Subject to confirmation by the several countries, the following tariff rates are in effect for hops:

| Country       | Customs Duties for Imports from |             |             |                 |             |           |
|---------------|---------------------------------|-------------|-------------|-----------------|-------------|-----------|
|               | Members of the E.E.C.           |             |             | other countries |             |           |
|               | Basis 1957                      | from 7/1/66 | from 7/1/67 | from 1/1/66     | from 7/1/68 | 1/1/1972* |
| Belgium . .   | 8 %                             | 2 %         | 2 %         | 10.4 %          | 10.8 %      | 9 %       |
| Germany . .   | 15 %                            | 3.7 %       | 3.7 %       | 13.2 %          | 10.8 %      | 9 %       |
| France . . .  | 12 %                            | 3 %         | 3 %         | 12.0 %          | 10.8 %      | 9 %       |
| Italy . . . . | 4 %                             | 1 %         | 1 %         | 8.8 %           | 10.8 %      | 9 %       |
| Luxembourg    | 8 %                             | 2 %         | 2 %         | 10.4 %          | 10.8 %      | 9 %       |
| Netherlands   | 8 %                             | 2 %         | 2 %         | 10.4 %          | 10.8 %      | 9 %       |

\*) The E.E.C. Common Custom Tariff will be reduced on 1/1/70 to 10.2 %, on 1/1/71 to 9.6 % and will arrive at 9 % on 1/1/72.

Climatic conditions during the year 1967 were generally favourable for the development of the hops, so that the plants could grow normally. Local damages were caused by **Hail** and **Storm**. The average figures for the weather in the districts of production were as follows:

|                | March | April | May  | June | July | August | Sept.   |
|----------------|-------|-------|------|------|------|--------|---------|
| Precipitations | 51    | 29    | 85   | 88   | 53   | 55     | 91 mm   |
| Temperatures   | 5.7   | 6.5   | 13.1 | 15.1 | 19.1 | 16.2   | 14.5° C |

The plants reached the height of the trellises at the beginning of July and stood in **Full Bloom** in the second half of July. The gardens showed a healthy and vigorous stand with the exception of the acreage damaged by hail. On the average, six to eight sprayings against **Downy Mildew** were effected, which was generally sufficient for a successful control. Verticillium Wilt was limited to last years' area.

**Picking** started around August 22nd/28th, and was mostly finished by September 20th. About 75 % of the harvest were picked by machines. Lack of labour was especially noticed on those farms, which had no picking machines available.

**Deutsche  
Demokratische  
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The quality of the hops was better than the year before and was graded as follows: 8 % of grade II, 84.2 % of grade III, 7.5 % of grade IV, 0.3 % of grade V. Prices for the several grades remained unchanged between DM 600.— for grade V and DM 1,000.— for grade I per cwt. (DM-East).

The hops were almost exclusively available for the local brewing industry and were partly converted into hop extract. Imports were 11,400 cwts. against unimportant quantities exported.

## Poland

The development of the vegetative period in 1967 was very good. Precipitations and temperatures were as follows:

|                | March | April | May  | June | July | August | Sept.   |
|----------------|-------|-------|------|------|------|--------|---------|
| Precipitations | 15.0  | 23.0  | 13.7 | 37.0 | 40.3 | 19.0   | 1.7 mm  |
| Temperatures   | 4.4   | 8.1   | 14.6 | 18.0 | 19.5 | 17.3   | 16.3° C |

The plants had wintered well and favourable climatic conditions in spring made it possible to effect **Spring Work** in good time. Nice and sunny weather in May and June advanced the growth of the hop plants. Spraying against **Downy Mildew** and especially against a strong evidence of **Aphids** had to be carefully controlled. There was no appearance of **Verticillium Wilt**. The plants reached the height of the trellises by the end of June. **Bloom** started at the end of July and was very plentiful. The weather remained sunny, favouring the formation of the cones as well as the ripening of the hops.

**Picking** started on August 20th and was finished on September 20th. Pickers were sufficiently available. Only on a few state farms the crop was picked by machines. The quality of the hop crop was judged better than the year before and classified as follows: Grade I 81.0 %, Grade II 18 %, Grade III 1 %. The acreage is distributed as follows: Private farmers 62 %, Co-operatives 5.3 %, State farms 32.7 %. A quantity of 14,040 cwts. was exported.

Contrary to former intentions to root smaller districts, a reactivation of the hop cultivation is foreseen introducing a new variety in the districts of Posen and Breslau. Since years trials were made to grow new hop varieties, complying better to the soil and climatic conditions, resistant against diseases (**Downy Mildew**) and containing a high bitter value besides fine aroma. After long efforts, the Hop Institute in Pulawy succeeded to grow two new varieties Lubelska-Pulawy and Nadwislanska-Vistula. They came 1964 into commercial production. These two varieties are destined exclusively for the planting of new hop yards and were in production for the first time in the district of Lublin.

The middle-early variety Lubelska-Pulawy is fairly resistant against climatic influences and is distinguished through its stability of yield. The cones were of an even green colour, possessing a light lupulin with an alpha-content between 6.5—7.5 %. The late variety Nadwislanska-Vistula is a typical aroma hop with an average bitter value.

The good average yields produced in the trial yards, could not be reached in the districts of production as yet.

## Czechoslovakia

The hops had wintered well and spring work could be done in good time under favourable weather. Rainfalls were distributed as follows:

|                  | March | April | May  | June  | July | August | Sept.   |
|------------------|-------|-------|------|-------|------|--------|---------|
| Saaz . . . . .   | 16.7  | 14.0  | 69.2 | 109.1 | 55.8 | 50.1   | 89.6 mm |
| Auscha . . . . . | 41.2  | 31.3  | 80.8 | 44.3  | 37.4 | 38.0   | 99.3 mm |

Warm weather and sufficient rainfalls at the beginning of May and in June benefited especially the development of the plants. The bines had locally reached the height of the trellises at the beginning of July and were already in **Bloom** by mid-July. On account of the very hot summer weather in June and July the district of Saaz was struck by heavy **Hail Storms**, which substantially contributed towards a reduction of the yield. Four to six sprayings were effected against **Downy Mildew**.

**Picking** started on August 20th and could be concluded under mostly good weather conditions. About 34 % of the harvest were brought in by 231 picking machines.

**Quality.** The cones were of small to middling size and showed a prevailing green colour. The crop was graded as follows: Grade I and II 85 %, Grade III 14 %. In spite of a quantitative lower crop all export engagements could be accomplished. Large quantities of US-hops were imported. The home breweries accepted 50,050 cwts. of Saaz hops.

**Spring Work** was finished until April 20th. The young shoots had developed well. A somewhat cooler and rainy period lasting from the end of May until June was not of any disadvantage for the growing of the hops and benefited especially the development of the laterals. Spraying against **Pests** and **Diseases** were effected up to 6—8 times. Rainfalls were distributed as follows:

|                | March | April | May  | June | July | August | Sept.   |
|----------------|-------|-------|------|------|------|--------|---------|
| Precipitations | 22    | 65    | 42.8 | 70.4 | 66.2 | 13.7   | 69.8 mm |

The hops reached the height of the trellises by the end of June. At this time **Bloom** started on early varieties and at the beginning of July on late hops. Dry and sunny weather in July and August favoured the **Formation of the Cones of the Early Varieties** and the cones on the lower third of the vines ripened well too. Contrary to this the late varieties suffered from a long lasting **Dryness**. In spite of smaller cones, the result of the crop was still satisfactory.

**Picking** lasted from August 5th until September 15th. An acute lack of labour caused generally great difficulties.

**Quality.** The cones of early varieties were more uniform in colour and size than last year. The small cones of late varieties were good in colour, but could not satisfy with regard to the content of lupulin. The crop was judged as follows: 52 % of grade I, 34 % of grade II, 14 % of grade III. On an acreage of 1,730 acres, a crop of 1,232,261 lbs. (712 lbs. per acre) was harvested. The total crop was taken over by the home breweries. To cover the demand, an additional lot of 7,400 cwts. was imported in 1967.

In the **SANN TAL (Slovenia)** the hop plants came well through the mild winter 1966/67, which brought a thin snowcover only. Weather conditions during the first growing period were favourable, but in July a **Dry Spell** set in lasting until the first half of August. Precipitations and temperatures were as follows:

|                | March | April | May  | June  | July | August | Sept.    |
|----------------|-------|-------|------|-------|------|--------|----------|
| Precipitations | 75.7  | 110.3 | 48.0 | 113.4 | 96.5 | 40.6   | 131.7 mm |
| Temperatures   | 7.0   | 9.0   | 15.8 | 17.8  | 21.7 | 19.5   | 16.4° C  |

The hops reached the height of the trellises by the end of June / beginning of July and showed a moderate overhang. In mid-July the gardens were in **Full Bloom**.

High temperatures and lack of moisture in July and in the first half of August hampered the development of the plants as well as the uniform formation of the hops. Against **Pests** and **Diseases** six sprayings were applied on the average.

**Picking** started on August 15th under fine weather conditions and was finished in the first days of September. 20 picking machines were in action.

**Quality.** As a consequence of the unfavourable weather during July and August cones were of rather unequal size, but the quality of the colour and the lupulin content were satisfactory. The crop 1967 was graded as follows: 95.29 % of grade I, 4.34 % of grade II, 0.37 % of grade III.

The home brewing industry received 11,684 cwts., whereas 48,702 cwts. were exported. The acreage is distributed among Private farmers (41.5 %) and Cooperatives, as well as State farms (58.5 %).

In the **BACKA** rainfalls and temperatures were distributed as follows:

|                | March | April | May  | June | July | Aug. | Sept.   |
|----------------|-------|-------|------|------|------|------|---------|
| Precipitations | 67    | 62    | 61   | 131  | 169  | 8    | 52 mm   |
| Temperatures   | 7.5   | 10.3  | 16.2 | 18.8 | 22.5 | 21.1 | 18.5° C |

The hops had wintered well without frost damage. Climatic conditions during the growth were not very favourable. Continuing rainfalls and cool temperatures from April until the beginning of July favoured especially the spreading of **Downy Mildew**, so that on the average 8 sprayings were necessary. A warm and dry period, starting from mid-July and lasting until the middle of September, benefited especially the development of the cones.

**Picking** started on August 23rd and was finished on September 6th, under fine and dry weather. There was no lack of labour.

The **quality** of the hops was judged better than the year before. The cones were of middling size and of even green colour. The crop was graded as follows: Grade I 82 %, Grade II 15 %, Grade III 3 %.

The entire crop was taken over at an average price. All export contracts were fulfilled. The domestic breweries required 15,000 cwts.

## Bulgaria

The plants had wintered well and showed some **Frost Damages** only on a small acreage of 98 acres. For the development of the hops, weather conditions in 1967 were quite normal. Precipitations and temperatures were as follows:

|                | March | April | May  | June | July | Aug. | Sept.               |
|----------------|-------|-------|------|------|------|------|---------------------|
| Precipitations | 31.3  | 54.7  | 61   | 82.8 | 46.5 | 50.3 | 58.5 mm             |
| Temperatures   | 6.3   | 10.4  | 16.0 | 17.7 | 18.9 | 22.7 | 17.5 <sup>0</sup> C |

Spraying against **Pests** and **Diseases** were carefully effected.

The plants reached the height of the trellises generally by the end of May, to some extent 14 days later. **Bloom** started in mid-July. Picking began on July 28th, with pickers lacking locally and was finished on September 5th. For the first time one picking machine was operating on a trial base. The quality was judged better than in the year before. The cones were of uniform colour. The crop was classified as follows: 68 % of grade I, 25 % of grade II, 7 % of grade III.

The total crop was handled centrally at fixed prices. Failing to adjust the prices in time, conforming to the quotations on the world market, only a small quantity could be exported. The home brewing industry required a quantity of 10,200 cwts. of hops.

## Greece

The trial planting started in 1961/62 and was enlarged in the meantime. In spring 1967 no damages by frost occurred. Against **Downy Mildew** four sprayings were effected, which were insufficient for a successful control. On account of the hot and dry climatic conditions during the season **Premature Bloom** set in, contributing substantially to the reduction of the crop.

**Picking** started in the first week of August and was finished by the end of this month. There were no picking machines in operation. On a total acreage of 61 acres a crop of 36,927 lbs. (605 lbs. / acre) was harvested. Prices amounted to US-Dollar 3.— per kilo.

## Belgium

In the district of **ALOST Spring Work** could be done under good climatic conditions. In May and June favourable weather benefited the growth of the hops. Dry and hot weather from the middle of June until August affected the further development of the several hop varieties, like **Northern Brewer** tending more to wet weather conditions. Contrary to this, the varieties Hallertau, Saaz and Tettnang showed an unusual abundant growth. Sprayings against **Pests** and **Diseases** were regularly effected about every 10 days. The height of the trellises was reached at the beginning of July. The variety Replant Hallertau stood in bloom on July 5th, whereas Northern Brewer hops reached **Full Bloom** around July 20th. The continuous warm weather in August was profitable for the development of the cones.

**Picking** started on August 28th and was finished under changeable weather within three weeks. A **Thunderstorm**, which struck this district on September 5th, discoloured to some extent still unharvested hops. Picking was done exclusively by machine.

**Quality.** The cones were of unequal size, generally of yellowish-green colour with plenty wind whipping. The crop was graded as follows: 70 % of grade I, 25 % of grade II, 5 % of grade III.

**POPERINGE.** The hops had wintered well and the **Uncovering** and **Cutting** could be done under favourable spring weather. Spring work was finished at the end of April. Around this time the weather became cooler and wet. Warmer weather in May and June benefited the growth of the hops. A thunderstorm on May 12th caused local **Hail Damage**. Precipitations and temperatures were distributed as follows:

|                | March | April | May   | June | July | Aug. | Sept.               |
|----------------|-------|-------|-------|------|------|------|---------------------|
| Precipitations | 53.7  | 45.5  | 119.4 | 21.1 | 31.9 | 45.5 | 61.4 mm             |
| Temperatures   | 7.0   | 7.2   | 11.8  | 14.0 | 18.0 | 17.1 | 14.2 <sup>0</sup> C |

While **Downy Mildew** could be kept under control through regular sprayings, the control of **Oldium**, appearing already in mid-June, caused great difficulties. On June 25th, 1967, the district was hit by a **Hurricane**. Luckily the violent storm took such a way that only one hop yard collapsed. Northern Brewer and Replant Hallertau hops reached the height of the trellises at the beginning of July. On account of dryness the Northern Brewer remained pointed, however, the variety Hallertau developed vigorously. The variety Brewers Gold reached the height of the trellises on July 15th. The hops were in **Bloom** at the end of July. Rain on August 8th benefited the development of the cones. The **Ripening of the Cones** of Replant Hallertau hops was excellent too in the lower third of the bines. Contrary to this, the Northern Brewer suffered strongly from the dryness and in several cases forced picking had to start on August 25th.



**Picking** started generally on August 28th, under very hot weather and was concluded on September 18th under somewhat cooler temperatures. Although a **Storm** on September 5th damaged partly unpicked hops, the entire crop was picked in mainly good condition with 141 machines.

**Quality.** The varieties Replant Hallertau and Brewers Gold were in colour and formation of the cones better than in the year before. On the other hand the quality of the Northern Brewer was weaker. The crop was graded as follows: 70 % grade I, 25 % grade II, 5 % grade III.

The **Belgian Market** responded fast to the baisse in Germany. The quotations for Replant Hallertau amounted to FB. 3,500.— (DM 280.—) at the beginning of September and decreased by the middle of this month to FB 3,000.— (DM 240.—). A business stop was noticed since the interest of buyers conformed to the German market. At the beginning of October prices obtained FB 2,500.— (DM 200.—) and fell by the end of this month to FB 2,000.— (DM 160.—). For Northern Brewer hops the market development was similar. At the beginning of September FB 4,000.— (DM 320.—) had to be paid. Only FB 3,500.— (DM 280.—) could be obtained by the middle of this month. At the end of September prices arrived at FB 2,500.— (DM 200.—).

Towards the middle of October, quotations in Germany started to rise slightly on account of the expected governmental measures, prices reached temporarily FB 3,000.— (DM 240.—) and decreased again by the end of this month to FB 2,500.— (DM 200.—). Similar was the market development for the variety Brewers Gold. After a slow, but steady trading the market was practically sold out until February 1968.

Up to now in Belgium, hops are traded according to varieties.

To the extent as a rising demand for bittering value in the hops and ample yields is being noticed, the cultivation of varieties changed according to the following information:

| <b>Alost</b>      | 1962 | 1965 | 1967 |
|-------------------|------|------|------|
| Replant Hallertau | 60 % | 45 % | 49 % |
| Northern Brewer   | 25 % | 40 % | 33 % |
| Other Varieties   | 15 % | 15 % | 18 % |
| <b>Poperinge</b>  | 1962 | 1965 | 1967 |
| Replant Hallertau | 55 % | 30 % | 24 % |
| Northern Brewer   | 19 % | 35 % | 40 % |
| Other Varieties   | 26 % | 35 % | 36 % |

Whereas the variety Replant Saaz is more and more disappearing in the Belgian hop growing districts, the variety Brewers Gold, included under "Other Varieties" is in strong advance. In the district of Poperinge this variety reached a portion of 33.6 % of the whole acreage in 1967.

Belgium imported the following quantities of hops, crop 1967 from September 1st, 1967 until December 31st, 1967:

| Country                 | lbs.    | Country                  | lbs.      |
|-------------------------|---------|--------------------------|-----------|
| Germany West . . . . .  | 384,923 | b. f. . . . .            | 724,210   |
| France . . . . .        | 121,473 | Poland . . . . .         | 121,694   |
| Great Britain . . . . . | 7,495   | Czechoslovakia . . . . . | 867,510   |
| Jugoslavia . . . . .    | 210,319 | U. S. A. . . . .         | 112,876   |
| c. f. . . . .           | 724,210 | Total . . . . .          | 1,826,290 |

Belgian hop imports crop 1966 until August 31st, 1967: 1,866,414 lbs.

Export of Belgian hops from September 1st, 1967, until December 31st, 1967 are shown as follows:

| Country                 | lbs.      | Country                       | lbs.      |
|-------------------------|-----------|-------------------------------|-----------|
| Algeria . . . . .       | 3,307     | b. f. . . . .                 | 1,142,863 |
| Denmark . . . . .       | 5,952     | Pakistan . . . . .            | 5,070     |
| Germany West . . . . .  | 780,428   | Portugal . . . . .            | 3,748     |
| Finland . . . . .       | 6,614     | Sweden . . . . .              | 41,005    |
| France . . . . .        | 178,352   | Switzerland . . . . .         | 16,975    |
| Great Britain . . . . . | 158,070   | Sierra Leone . . . . .        | 10,802    |
| Ireland . . . . .       | 7,936     | U. S. A. . . . .              | 45,415    |
| Mauritius . . . . .     | 2,204     | Trinidad and Tobago . . . . . | 4,409     |
| c. f. . . . .           | 1,142,863 | Total . . . . .               | 1,270,287 |

Belgian hop exports crop 1966 until August 31st, 1967: 1,075,404 lbs.

|                | March | April | May  | June | July | August | Sept.   |
|----------------|-------|-------|------|------|------|--------|---------|
| Precipitations | 28.9  | 22.2  | 90.8 | 61.8 | 50.4 | 76.4   | 66.5 mm |
| Temperatures   | 7.6   | 8.7   | 13.6 | 16.3 | 20.2 | 18.3   | 15.1° C |

After a relatively mild and moderately wet winter, the **Uncovering** and **Cutting** could be started before mid-March. Generally the hops had wintered well with the appearance of some local **Root Rot**. Mild and sunny weather until April 15th favoured the growth of the young shoots. A cold wave by the end of April as well as changeable wet and cool weather conditions in May until mid-June hampered the development of the hops. Stormy weather on May 26th and also hail on June 6th caused local damages in the surroundings of Strasbourg.

The growth benefited greatly from high summerly temperatures in June and July. The yards reached the height of the trellises on June 20th. According to variety, **Bloom** started between the middle and the end of July. On July 20th, about 50 hop growing communities were heavily struck by a **Hailstorm**, resulting in an estimated crop reduction of 5/6,000 cwts. In general, the hops remained pointed and only a scattered short overhang was to be noted. Against **Downy Mildew** and **Aphids** up to sixteen sprayings were effected.

**Picking** began on September 1st and was finished on September 15th. 90 % of the crop were picked by machines. There was no lack of labour.

**Quality.** The Alsace hops were of palegreen colour, but had certainly larger sized cones than last year. The content of lupulin was not as ample as compared with hops of the year 1966. The crop was judged as follows: 90 % of grade I, 5 % of grade II, 5 % of grade III. The purchasing prices were between FF 200.— and FF 280.—. The district was sold out by the end of November. The market was not influenced by the baisse in Germany.

In FLANDRES the hops had wintered well. Spring weather favoured the development of the plants. Against **Downy Mildew** and especially against a strong evidence of **Aphids**, 14 to 16 sprayings had to be effected. There was no appearance of Verticillium Wilt.

The hops reached the trellises under summerly weather and were in **Full Bloom** at the middle of July. With the exception of a local infection from **Oidium** on Northern Brewer hops, the yards showed a healthy stand. Several rainfalls and continuing warm weather benefited the **Development** and the **Ripening** of the hops.

**Picking** started on August 29th and was finished including late varieties by the end of September during good weather. 95 % of the crop were mechanically picked.

There was no lack of labour.

The **Quality** of the hops was graded as follows: 60 % of grade I, 25 % of grade II, 15 % of grade III. The cones were equal and of good colour.

Prices for free available hops remained stable until the middle of September 1967. Quotations developed as follows:

|                 | 9/1      | 9/15  | 10/1  | 10/15 | 11/1  |
|-----------------|----------|-------|-------|-------|-------|
| Brewers Gold    | FF 325.— | 325.— | 250.— | 200.— | 200.— |
| Northern Brewer | FF 425.— | 425.— | 350.— | 250.— | 235.— |

The weakness of the adjacent Belgian Market, affected obviously the district of Flandres. On January 1st, 1968 the unsold stocks at the farmers were estimated of about 1,000 cwts. The district was sold out at the beginning of March only.

The **French Market Agreement** is not complicated as it concerns the domestic market only. Between the Brewers- and the Planters Association, as well as the Hop Merchants, an agreement was settled on a voluntary basis, agreeing that the brewing industry is to take over a certain part of the yearly requirements in french hops. Prices for the signed **Forward Contracts** are determined by the Interprofessional Committee to avoid undercutting or out-bidding. A control is being effected by the Ministry of Agriculture in Paris which is distributing the import contingents. Export trade is not bearing any losses, because free available hops are not affected by the Marketing Agreement.

The price guarantee is supposed to run out this year.

In 1967 France imported:

| Countries                    | Jan.-June lbs. | July-Dec. lbs.   | Total lbs.       |
|------------------------------|----------------|------------------|------------------|
| Belgium-Luxembourg . . . . . | 62,611         | 188,273          | 250,884          |
| Germany West . . . . .       | 405,646        | 694,228          | 1,099,874        |
| Jugoslavia . . . . .         | 285,275        | 46,297           | 331,572          |
| Czechoslovakia . . . . .     | 98,325         | 363,979          | 462,304          |
| U. S. A. . . . .             | 61,067         | —                | 61,067           |
| <b>Total . . . . .</b>       | <b>912,924</b> | <b>1,292,777</b> | <b>2,205,701</b> |

French hop imports for the calendar year 1966 = 2,393,093 lbs.

Export of French hops in 1967 were as follows:

| Destination                    | Jan.-June lbs.   | July-Dec. lbs.   | Total lbs.       |
|--------------------------------|------------------|------------------|------------------|
| Algeria . . . . .              | 13,228           | 23,589           | 36,817           |
| Belgium-Luxembourg . . . . .   | 104,939          | 264,552          | 369,491          |
| Denmark . . . . .              | 27,778           | —                | 27,778           |
| Germany West . . . . .         | 778,444          | 725,754          | 1,504,198        |
| Great Britain . . . . .        | —                | 1,102            | 1,102            |
| Guinea . . . . .               | —                | 2,205            | 2,205            |
| Cameroons . . . . .            | 22,046           | —                | 22,046           |
| New Caledonia . . . . .        | 2,425            | 2,866            | 5,291            |
| Congo (Brazzaville) . . . . .  | 3,307            | 7,716            | 11,023           |
| Austria . . . . .              | 33,510           | —                | 33,510           |
| Spanish North Africa . . . . . | 11,023           | 11,023           | 22,046           |
| Switzerland . . . . .          | 6,173            | 48,501           | 54,674           |
| U. S. A. . . . .               | —                | 223,546          | 223,546          |
| Other Countries . . . . .      | 2,205            | —                | 2,205            |
| <b>Total . . . . .</b>         | <b>1,005,078</b> | <b>1,310,854</b> | <b>2,315,932</b> |

French hop exports for the calendar year 1966 = 1,954,983 lbs.

In the district of **MUEHLVIERTEL**, good spring weather favoured the growth of the hops, which was interrupted by a bad weather period at the end of April. On account of rising temperatures at the beginning of May the plants made up for the loss in the development. On the average 13 sprayings were effected against a strong evidence of **Aphids** and **Downy Mildew**.

**Austria**

In June the development made further good progress and the bines had reached the height of the trellises by the end of this month. The hops stood in **Bloom** during the middle of July and showed a slight overhang. As a result of the dry climatic conditions in July and August, the hops showed damage by dryness on light soils. On heavy soils the plants were healthy and the cones ripened in the lower third of the bines.

**Picking** started on August 25th and was finished under exclusively nice weather on September 8th. There was no lack of pickers.

The hops of crop 1967 were considerably better in colour and **Quality** than in the year before, although the cones were of somewhat smaller size. The crop was graded as follows: 95.3 % of grade I, 4.6 % of grade II, 0.1 % of grade III. On an acreage of 96 acres a crop of 124,890 lbs. (1,301 lbs. per acre) was harvested.

In the **LEUTSCHACH** district the plants had neither suffered from climatic conditions, nor through pests and diseases. Sunny weather benefited the development of the bines. Precipitations were distributed as follows:

| March | April | May   | June | July | August | September |
|-------|-------|-------|------|------|--------|-----------|
| 54.7  | 90.3  | 119.3 | 92.2 | 84.2 | 136.6  | 196.3 mm  |

On the average up to 12 sprayings were effected against **Pests** and **Diseases**. The bines reached the height of the trellises by the end of July and developed a moderate overhang. **Bloom** started on July 20th.

**Picking** began on August 18th and was finished on September 10th under partly rainy weather. 9 picking machines handled 65 % of the crop. There were sufficient pickers available.

The **Quality** corresponded to that of last year and was graded as follows: 84 % of grade I, 12 % of grade II, 4 % of grade III.

The total crop was accepted by the breweries on an agreed price level of Austrian Sh. 45.— per kilo for first quality and a 5 % deduction for grade II and III. On a total acreage of 165 acres a crop of 189,375 lbs. (1,148 lbs. per acre) was harvested.

## Switzerland

The growing period was characterized partly by high temperatures and precipitations above average. The bines reached the height of the trellises on July 5th and showed a vigorous overhang. Some yards suffered from **Storm Damages**. **Downy Mildew** and **Aphids** had to be controlled by 12 to 14 sprayings.

**Picking** started on August 25th and was concluded under good weather on September 15th. The whole crop was handled by machines.

**Quality.** The hops of crop 1967 had somewhat unequal cones of good colour, corresponding in quality to last year's crop. There were only hops of grade I. On a slightly smaller acreage of 31 acres, including no new hop yards, a crop of 430 cwts. (13.9 cwts. per acre) was harvested.

The entire crop was accepted by the home breweries at a price of sfrs. 410.— per 50 kilos. Farmers received a **Payment from the Compensation Fund** of sfrs. 90.— per 50 kilos.

## Spain

The development of the hops progressed well under favourable climatic conditions. With the exception of a small infection by oidium in the district of León no diseases or insects occurred. On a total acreage of 2,596 acres yields were as follows:

| District   | Acreage acres | Crop lbs. | Yield per acre lbs. |
|------------|---------------|-----------|---------------------|
| Galicia    | 425           | 178,352   | 420                 |
| León       | 1,826         | 2,153,894 | 1,179               |
| Cantábrica | 345           | 273,150   | 792                 |
| Total      | 2,596         | 2,605,396 | 1,004               |

**Picking** lasted from the middle of August until mid-September. The weather during the harvest was favourable. About 25 % of the hop production were handled by machines. For the picking of the remaining quantity, sufficient labour was available.

The **Quality** was better than the year before and the crop was judged as follows: 84 % of grade I, 15.5 % of grade II, 0.5 % of grade III. Although the hop acreage in all three districts was somewhat smaller (totalling 284 acres), the yield was nearly as large as last year's crop, a result of the high yield per acre in León and especially in Cantábrica. The import demand of the Spanish brewing industry is very low.

## England

During the entire growing season the weather was very favourable for the development of the hops without regard to **High Winds** in August and September. Especially important rainfalls in June benefited the development of the plants. **Pests** and **Diseases** were kept under control by systemic preparations. **Verticillium Wilt** is still spreading in the district of Kent, however, the appearance of this infection was not noted anymore in the Midlands.

**Picking** started on September 1st and was finished within four weeks. Apart from a few rainy days, the weather during the harvest was generally dry. On a total acreage of 19,152 acres 24,083,049 lbs. (1,257 lbs. per acre) were harvested.

The **Quality** of the crop 1967 was above the average of that of last years and was graded as follows: 30.8 % of grade I, 44.4 % of grade II and 24.8 % of grade III. The average price to producers was fixed at 38.8.0 per cwt.

The demand of crop 1967 for the home brewing industry was stated to be 190,203 cwts. This conforms to a production quota of about 84 % against 89 % of last year, which results from a more economic use of the hops.

To adjust the hop production towards the requirements, a strong reduction of the acreage will become necessary and there is no doubt that the basic quota for the farmers has to be reduced by 15 % in 1970. Because of the Hop Marketing Agreement an earlier date is not possible.

The English **Hop Marketing Agreement** was introduced in 1931 and the Hop Marketing Board was authorized with its realization. All hop growers must be registered there.

A Hop Committee, founded by the Brewers Association and the Marketing Board, has to control the observance of this agreement. Each grower is assigned to a basic quota to give him advanced indication of the quantity required from his next crop.

This basic allotment is renewed every 5 years and is calculated by the average of the produced hop quantity during this period.

To determinate the annual quota for the respective crop year, in January breweries are requested by the Brewers Association to apply for their demand of English hops, which should be at least 90 % of the total requirements. According to the domestic and export needs, the Hop Committee determines the annual quota of the grower. As a result of this, an import contingent of only 10 % of import hops is granted to English breweries. After determination of the production cost, the price paid to farmers is also fixed by the Hop Committee. Producers can only sell their hops to the Marketing Board or through its intervention. For surplus hops, delivered above the annual quota, growers will not get any price guarantees. On account of this, excess quantities remain mostly unharvested. The Marketing Board is obliged to accept these hops, but has also the right to destroy them without any compensation, if the disposal within a certain period is not possible.

Due to the regulations of the English Hop Marketing Agreement, no **Free Market** exists, as hop dealers must cover their requirements at the Marketing Board too. This explains why there is little trading on the world market, despite a considerable production of English hops.

The following quantities of hops crop 1967 were imported from September 1st, 1967 to March 31st, 1968:

| Country                | cwts.  | Country                  | cwts.  |
|------------------------|--------|--------------------------|--------|
| Belgium . . . . .      | 2,667  | b. f. . . . .            | 14,964 |
| Canada . . . . .       | 2,074  | Netherlands . . . . .    | 322    |
| Denmark . . . . .      | 29     | Poland . . . . .         | 465    |
| Germany West . . . . . | 1,658  | Switzerland . . . . .    | 188    |
| New Zealand . . . . .  | 2,670  | Czechoslovakia . . . . . | 618    |
| Ireland . . . . .      | 794    | U. S. A. . . . .         | 150    |
| Jugoslavia . . . . .   | 5,072  | Total . . . . .          | 16,707 |
| c. f. . . . .          | 14,964 | 1 cwt. = 50.8 kg         |        |

English imports of hops crop 1966 until March 31st, 1967 = 11,980 cwts.

The following quantities of hops crop 1967 were exported from September 1st, 1967 to March 31st, 1968:

| Exports of English Hops Crop 1967      |       |                                   |       |
|--|-------|-----------------------------------|-------|
| September 1st, 1967 — March 31st, 1968 |       |                                   |       |
| Country                                | cwts. | Country                           | cwts. |
| Angola . . . . .                       | 24    | b. f. . . . .                     | 6,361 |
| Belgium . . . . .                      | 868   | Malaya States . . . . .           | 225   |
| Germany West . . . . .                 | 18    | Malta . . . . .                   | 280   |
| Finland . . . . .                      | 12    | Mauritius . . . . .               | 31    |
| Ireland . . . . .                      | 5,439 | Republ. of South Africa . . . . . | 21    |
| c. f. . . . .                          | 6,361 | Other Countries . . . . .         | 16    |
|  |       | Total . . . . .                   | 6,934 |
|  |       | 1 cwt. = 50.8 kg                  |       |

English exports of hops crop 1966 until March 31st, 1967 = 14,345 cwts.

**CALIFORNIA.** In the district of **Sacramento** the hops showed no signes of damage by weather and could develop free from pests. The growth was retarded by too late rainfalls. Precipitations were distributed as follows:

**U. S. A.**

| April | May  | June | July | August | September  |
|-------|------|------|------|--------|------------|
| 3.91  | —,05 | —,42 | —    | —,02   | —,19 inch. |

Appearing **Pests** and **Diseases** could be controlled successfully by four sprayings. The hops reached the height of the trellises on June 21st and **Bloom** occurred at the end of June. Although the bines formed a very good overhang, the cones on the lower third could not ripen.

**Picking** started on August 21st and was finished by mid-September. There was no lack of labour. The weather during the harvest was mild.

The **Quality** of the hops was in colour as well as in content of lupulin above average. The crop was graded as follows: 25 % of grade I, 55 % of grade II, 20 % of grade III.

**WEST-OREGON.** The hops in this district could develop better by generally somewhat warmer climatic conditions as usual. Rainfalls were distributed as follows:

| April | May  | June  | July | August | September   |
|-------|------|-------|------|--------|-------------|
| 2.02  | 1.87 | — .65 | —    | —      | — .84 inch. |

The plants were unusually free from **Pests** and **Diseases**, so that only two preventive sprayings were necessary. A local hailstorm caused only small damage. The hops reached the height of the trellises during the last week of June and were in **Full Bloom** at the middle of July. While the varieties of the Bullion and Clusters showed a good overhang, the variety of the Fuggles remained mostly pointed. On the lower third of the bines cones were only sporadically present. **Picking** started on August 10th and was finished under very hot weather on September 20th.

The **Quality** of the hops was judged generally equal to the year before and was classified as follows: 20 % of grade I, 60 % of grade II, 20 % of grade III.

**EAST-OREGON and IDAHO.** In this district the development of the hops was delayed under relatively cool weather during the spring. Damages by frost did not occur. During the further development, the hops suffered especially under the strong heat in the summer months. Precipitations were distributed as follows:

| April | May   | June | July | August | September   |
|-------|-------|------|------|--------|-------------|
| 1.38  | — .64 | 1.98 | —    | —      | — .83 inch. |

Up to four sprayings were effected against **Downy Mildew** whereas **Aphids** and **Red Spider** could be effectively controlled by two sprayings. The bines reached the height of the trellises on June 20th. Early Clusters showed first **Bloom** on June 25th, whereas late Clusters started to bloom around July 15th. Whilst the early varieties remained generally pointed, late varieties developed a good overhang and the cones ripened well.

**Picking** started on August 18th and was finished within four weeks under favourable weather conditions. The hops were of good colour, however, in respect to the bitter value, somewhat lower than the year before. Classification of the crop was as follows: 30 % of grade I, 65 % of grade II, 5 % of grade III.

**WASHINGTON.** In the district of **Yakima** there appeared no frost damages when the hops were **Uncovered** and **Cut**. Cool weather in March and April hampered the development of the hop plants. Precipitations were distributed as follows:

| April | May   | June | July | August | September   |
|-------|-------|------|------|--------|-------------|
| 1.03  | — .16 | 1.12 | —    | — .01  | — .09 inch. |

The slow start of the development of the plants was offset by warm and dry weather conditions in May and June. On the average **Downy Mildew** was controlled successfully by two to three sprayings. The hops reached the height of the trellises on June 15th. Early Clusters showed first **Bloom** at the same time, whereas late Clusters started to bloom around July 15th. The extraordinary strong growth of the leaves on the bines led to an especially weak development of the cones by the late Clusters. The lasting **Heat** in August and **Hot Winds** at the beginning of September caused a crop shortage of about 44,000 cwts.

**Picking** started on August 17th and was finished on September 20th under excellent weather conditions.

The **Quality** of the hops was judged to be generally lower than the year before. The crop was graded as follows: 10 % of grade I, 60 % of grade II, 30 % of grade III.

In May 1967 approx. 16,000 cwts. of hops, crop 1966 were still unsold at the growers. Despite the low market prices no activities could develop on the hop market until the new crop. Also no larger contracting was to be noticed during this period as breweries had an ample supply of hops crop 1967.

The 1967 crop of the American hops was disappointing. Unusual hot winds at the beginning of September on the West coast reduced the crop considerably. The basic quota of 501,500 cwts. could not be reached. The price collapse for hops of crop 1966 affected the quotations of crop 1967 unfavourably. In September revived interest for free available hops of crop 1967 was to be noticed, but in Washington and Idaho only 32 and 33 cents per lb. plus premiums could be maintained. In Oregon, the variety Bullion was traded at 30 cents and 32 cents. On the other hand, in California no market could develop for the time being. Even as the large German crop became known, prices remained stable. At the beginning of November a fire destroyed approx. 14,000 cwts. of hops. This way surplus quantities were reduced, but a noticeable stiffening of the market did not occur.

Despite of a quiet market in December and January 1968 continuously small purchases were effected resulting in a decrease of stocks in both crops 1966 and 1967. A lively demand set in at the end of February 1968 and prices for Yakima hops, crop 1967, rose to 36 cents and 40 cents net. At this time the American market was sold out with the exception of a few remaining lots. At the end of February 1968, in Washington and Idaho contract prices for crops 1968/69/70 were at 38/42/45 cents per lb. plus premium and for crop 1971/72/73 at 46/47/48 cents per lb. plus premium. In Oregon contracts for the variety Fuggles were closed for crop 1968/69/70 at 50/54/56 cents per lb. plus premium on a basis of 12 % content of seeds, quotations for the variety Bullion were at 45 cents for crop 1969/70.

Crop 1968 is under contract to about 90 % and a remarkable percentage of crop 1969 is sold too.

The disappointing price development for hops, crop 1966 and 1967 caused farmers to request a change of the present Hop Marketing Agreement. For this purpose, the Ministry of Agriculture had ordered a hearing on February 1st, 1968 in Portland, Oregon. During this discussion farmers proposed to extend the maximal reduction of the basic quota from 15 % up to 25 % for all years starting with crop 1969 and to add this amendment to the present Hop Marketing Agreement.

After examination of this request by the Ministry of Agriculture, the Government ordered to vote upon this request. This amendment had to be accepted by two thirds of the growers.

In a referendum held on April 20th/29th, 71 % of the growers, representing 68 % of the hop growing acreage, voted for a reduction of the present saleable quota of 75 % starting with crop 1969. The 25 % reduction of the quota will depend on the quantity of unsold hops of crop 1968 in February 1969. For crop 1968 the reduction of 15 % as determined in the original Hop Marketing Agreement will be still effective.

According to this measure American growers believe in better prices for the future crop years. The consequences for the export business are judged with sceptis.

**Marketing  
Agreement  
U. S. A.**

| <b>Hop Imports U.S.A. Crop 1967</b>      |                  |                |
|--|------------------|----------------|
| September 1st, 1967 — January 31st, 1968 |                  |                |
| Country                                  | lbs.             | cwts. p. 50 kg |
| Belgium-Luxembourg . . . . .             | 111,932          | 1,015          |
| Germany West . . . . .                   | 4,965,439        | 45,046         |
| France . . . . .                         | 624,262          | 5,663          |
| Jugoslavia . . . . .                     | 1,670,273        | 15,153         |
| <b>Total . . . . .</b>                   | <b>7,371,906</b> | <b>66,877</b>  |

Import of hops crop 1966 amounted to 74,102 cwts. until January 31st, 1967.

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

| <b>Exports of US-Hops Crop 1967</b>      |           |                    |                                 |                   |                    |
|--|-----------|--------------------|---------------------------------|-------------------|--------------------|
| September 1st, 1967 — January 31st, 1968 |           |                    |                                 |                   |                    |
| Country                                  | lbs.      | cwts.<br>per 50 kg | Country                         | lbs.              | cwts.<br>per 50 kg |
| Ethiopia . . . . .                       | 24,240    | 220                | b. f. . . . .                   | 8,421,772         | 76,395             |
| Argentina . . . . .                      | 190,020   | 1,724              | Mozambique . . . . .            | 13,809            | 125                |
| Belgium-Luxembourg . . . . .             | 280,630   | 2,546              | Nicaragua . . . . .             | 19,842            | 180                |
| Bolivia . . . . .                        | 32,172    | 292                | Netherlands . . . . .           | 194,770           | 1,767              |
| Brazil . . . . .                         | 576,138   | 5,226              | Nigeria . . . . .               | 46,200            | 419                |
| Bermuda . . . . .                        | 12,000    | 108                | Norway . . . . .                | 21,924            | 199                |
| Canada . . . . .                         | 1,676,643 | 15,210             | Austria . . . . .               | 99,211            | 900                |
| Chile . . . . .                          | 25,131    | 228                | Pakistan . . . . .              | 6,804             | 62                 |
| Colombia . . . . .                       | 722,353   | 6,553              | Paraguay . . . . .              | 22,046            | 200                |
| Costa Rica . . . . .                     | 11,067    | 100                | Peru . . . . .                  | 309,638           | 2,809              |
| Denmark . . . . .                        | 346,312   | 3,141              | Philippine Isl. . . . .         | 629,327           | 5,709              |
| Germany West . . . . .                   | 2,045,658 | 18,558             | Portugal . . . . .              | 78,570            | 712                |
| Dominican Republic . . . . .             | 7,025     | 63                 | El Salvador . . . . .           | 6,542             | 59                 |
| Ecuador . . . . .                        | 5,143     | 46                 | Sierra Leone . . . . .          | 24,154            | 219                |
| Finland . . . . .                        | 5,273     | 48                 | Rep. of. South Africa . . . . . | 75,980            | 689                |
| Greece . . . . .                         | 20,673    | 187                | South-Korea . . . . .           | 24,251            | 220                |
| Great Britain . . . . .                  | 75,069    | 681                | Sweden . . . . .                | 77,910            | 706                |
| Guatemala . . . . .                      | 13,996    | 127                | Switzerland . . . . .           | 64,666            | 586                |
| Hongkong . . . . .                       | 69,921    | 634                | Taiwan . . . . .                | 190,716           | 1,730              |
| Honduras . . . . .                       | 30,062    | 272                | Thailand . . . . .              | 22,108            | 200                |
| Ireland . . . . .                        | 609,144   | 5,526              | Trinidad . . . . .              | 11,082            | 100                |
| Italy . . . . .                          | 56,037    | 508                | Czechoslovakia . . . . .        | 667,750           | 6,058              |
| Kenya . . . . .                          | 13,305    | 120                | Uruguay . . . . .               | 52,880            | 480                |
| Japan . . . . .                          | 157,810   | 1,432              | Vietnam . . . . .               | 11,032            | 100                |
| Rep. Congo . . . . .                     | 64,704    | 587                | Venezuela . . . . .             | 299,585           | 2,718              |
| Malaysia . . . . .                       | 3,016     | 27                 | Other Countries . . . . .       | 18,656            | 169                |
| Mexico . . . . .                         | 1,348,230 | 12,231             | <b>Total . . . . .</b>          | <b>11,411,225</b> | <b>103,511</b>     |
| c. f. . . . .                            | 8,421,772 | 76,395             | 110.23 lbs. = 1 cwt. p. 50 kg   |                   |                    |

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

The American export of hops crop 1966 came to 163,483 cwts. until January 31st, 1967.

**Canada**

In both districts of production **Kamloops** and **Sardis** the hops came without frost damages through the mild winter. Pleasant spring weather favoured the growth of the plants. Precipitations were distributed as follows:

|                    | March | April | May  | June | July | Aug. | Sept.      |
|--------------------|-------|-------|------|------|------|------|------------|
| Sardis . . . . .   | 6.10  | 2.17  | 2.20 | 1.48 | 1.05 | 0.26 | 4.59 inch. |
| Kamloops . . . . . | 0.41  | 0.34  | 0.38 | 0.09 | 0.49 | 0.31 | 0.16 inch. |

In the district of **SARDIS** the vines reached the height of the trellises on June 10th and were in **Bloom** at the beginning of July. The hops showed a good overhang and cones on the lower third of the vines ripened too. On account of a hot and dry summer 15 sprayings had to be effected against **Red Spider**. A few yards suffered under deficient irrigation.

**Picking** started on August 23rd and was finished on September 22nd under good weather conditions.

**Quality.** The hops had a good colour, but showed a lower content of lupulin as against last year. The crop was graded as follows: Grade I 75 %, Grade II 25 %.

In the district of **KAMLOOPS** only two sprayings were effected against Pests and Diseases. The plants reached the height of the trellises on June 1st and stood in bloom in the last week of July. Sunny and dry weather favoured the **Development** and the **Ripening** of the hops.

**Picking** started on September 4th and was finished by the end of September under fine weather.

The hops were of good colour and the **Quality** was better than the year before. The entire crop was classified as grade I. On a total acreage of about 950 acres a crop of 1,549,600 lbs. was harvested. This result corresponds to a reduction of the yield of 2,117 cwts. as against the year before, but is still above the average of the last 6 years.

**Japan**

In the district of **NAGANO** good climatic conditions prevailed during the growing period. High temperatures and less precipitations from March until May caused a slow, but steady growth of the hops. Sufficient rainfalls in June started in time to prevent a dry period. Precipitations and temperatures were as follows:

|                | March | April | May  | June | July | Aug. | Sept.   |
|----------------|-------|-------|------|------|------|------|---------|
| Precipitations | 57    | 96    | 33   | 113  | 156  | 101  | 78 mm   |
| Temperatures   | 3.8   | 10.4  | 17.0 | 19.4 | 24.1 | 24.7 | 20.3° C |

The vines reached the height of the trellises about mid-June, and were in **Bloom** by the end of this month. In a smaller part of the district, a **Hailstorm** caused heavy damages. **Downy Mildew** and **Red Spider** were controlled by 8 to 10 sprayings.

**Picking** started at the beginning of August, during sunny weather and was concluded at the end of this month.

The **Quality** of the hops was judged somewhat lower than the year before.

In the district of **HOKKAIDO** the development of the hops was advanced by about 10 days, due to favourable temperatures and ample precipitations. Rainfalls and temperatures were registered as follows:

|                | March | April | May  | June | July | Aug. | Sept.   |
|----------------|-------|-------|------|------|------|------|---------|
| Precipitations | 54    | 46    | 85   | 154  | 95   | 44   | 191 mm  |
| Temperatures   | — 2.6 | 5.1   | 14.2 | 16.0 | 21.4 | 20.2 | 14.3° C |

**Downy Mildew** and **Red Spider** had to be carefully controlled. The investigation of a disease, similar to Verticillium Wilt appearing in the district of Hokkaido has not led to a success up to now.

The hops reached the height of the trellises by mid-June and stood in **Bloom** by mid-July. Sunny and dry weather in August benefited the **Development** and **Ripening** of the early varieties, whereas late varieties showed some damage by dryness.

**Picking** started on August 12th and was finished on September 11th. Towards the end of the harvest there were not enough pickers available.

**Quality.** The cones were larger than last year, of good colour and very rich in content of lupulin.

The Japanese hops of crop 1967 were graded as follows: 90 % of grade I, 5.7 % of grade II and 4.3 % of grade III.



Sponsoring breweries accepted the whole crop according to contracts. Price were as follows for:

Grade I \$ 111.— per 50 kilos (DM 444.—)  
 Grade II \$ 95.50 per 50 kilos (DM 382.—)  
 Grade III \$ 80.— per 50 kilos (DM 320.—)

On a practically unchanged acreage of 4,611 acres an unimportant larger crop was harvested only. The rising beer production resulted in a stronger demand for import hops, obtained mainly from Germany.

## Crop 1968

From the Southern Hemisphere, where the hop crop is harvested in February/March each year, the following information has come to hand:

Heavy rainfalls and cool weather in October and November as well as a **Period of Dryness**, lasting from December 1967 until March 1968 retarded the growth of the hops. Precipitations were distributed as follows:

**Republic of  
South Africa**

| 1967 |       |      |      |      | 1968 |       |            |
|------|-------|------|------|------|------|-------|------------|
| Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Febr. | March      |
| 1.06 | 2.78  | 1.41 | 2.33 | 0.97 | 0.24 | 0.25  | 3.22 inch. |

The hops reached the height of the trellises by the end of December and were in full **Bloom** at the beginning of January 1968. The vines developed generally little overhang. Only one spraying was necessary against **Pests** and **Diseases**. Cones ripened on the lower third of the vines too.

**Picking** began on February 8th and was finished under very dry weather. There were not always enough pickers available.

**Quality.** The hops of crop 1968 were of good colour but showed partly wind whipping. The cones possessed a lower content of lupulin than 1967. The crop was classified as follows: Grade I 44 %, Grade II 37 %, Grade III 19 %.

On a somewhat enlarged total acreage of 336 acres a crop of 127,426 lbs. (379 lbs. per acre) was harvested. Prices amounted to 55 cents per lb. (DM 336.— per cwt.).

In **TASMANIA** the development of the hops during the season 1967/68 was generally satisfying, although the plants were considerably damaged during the growth by high winds. The hops reached the height of the trellises by the end of December and stood in **Bloom** in the first half of January. Two sprayings were sufficient to control **Red Spider**. **Verticillium Wilt** appeared only sporadically.

**Australia**

**Picking** started on March 2nd, 1968 and was finished on April 12th, under unfavourable weather conditions. About 70 % of the hops were picked by machines. For the rest, sufficient labour was available.

The **Quality** was judged better than the year before, especially of the early and middle early varieties. On an acreage of 1,478 acres a crop of 3,004,980 lbs. (2,033 lbs. per acre) was harvested.

From **VICTORIA** no detailed informations are available up to now. Owing to a devastating **Dryness** in this district and a thereby necessary restriction of irrigation, hop yards were strongly affected. Therefore a detailed report concerning the result and the quality of crop 1968 is not obtainable at the moment.

The growth of the plants was hampered by an exceptionally humid weather in November. The wet weather favoured the appearance of **Downy Mildew**, so that hop yards had to be controlled very carefully. Control measures were, however, not necessary. Rainfalls during the season 1967/68 were distributed as follows:

**New Zealand**

| 1967  |       |      |       |      | 1968  |       |            |
|-------|-------|------|-------|------|-------|-------|------------|
| Aug.  | Sept. | Oct. | Nov.  | Dec. | Jan.  | Febr. | March      |
| 11.78 | 2.04  | 2.69 | 12.70 | 2.94 | — .69 | 1.34  | 5.81 inch. |

The hops reached the height of the trellises in the first week of January and stood in **Full Bloom** by mid-January 1968. At the beginning of February a **Period of Dryness** set in, lasting four weeks. A number of hop yards, unable to be irrigated, were considerably damaged. The bines showed only little overhang, however, the cones on the lower third ripened well.

**Picking** was interrupted by rainfalls and was finished in the middle of March 1968. 90 % of the crop were picked by machines.

**Quality.** The cones were of good colour and had an average content of lupulin. The crop was graded as follows: 2.4 % of grade I, 46 % of grade II, 47.6 % of grade III, 4 % of grade IV. On an acreage of 528 acres a crop of 807,324 lbs. (1,529 lbs. per acre) was harvested. For hops of grade I and the variety "Smoothcone" a premium of 2 d per lb. (DM 8.75 per 50 kilos) was paid.

Reportedly brewers are requested under the current contract to take over all first grade hops from the farmers. In order to reduce the large excess stocks of hops, breweries decided to pay a premium to farmers for idling a certain acreage. In 1968 this resulted in a reduction of the crop quantity by 2,100 cwts. against the year before.

## Growth 1968 in Germany

In all districts, hop yards came without damage through the mild winter 1967/68. **Spring Work** could be accomplished under excellent climatic conditions in March. Favourable weather in April with partially high summer temperatures caused a luxuriant growth.

**HALLERTAU.** Cool and rainy weather in May was not especially favourable during the vegetative period and at the beginning of June so-called climatic damages on the leaves were noted. This appearance, however, did not affect the further development. In the second half of June extraordinarily high temperatures prevailed, interrupted by sufficient rainfalls, so that the danger of a premature bloom did not occur.

**TETTANG.** As a consequence of the warm weather in April and from the second half of June **Downy Mildew**, as well as **Aphids**, which appeared very strongly, had to be carefully controlled. In this case the experiences made during the last year were of advantage.

**SPALT.** The growth in this district was retarded by a cool period in May and the beginning of June. The plants show a healthy stand and have reached the height of the trellises. **Aphids** had to be carefully controlled.

**HERSBRUCK GEBIRGE.** In this district too a luxuriant growth is noted. The hops have reached the height of the trellises, the stand is healthy and vigorous. Sprayings in due course, prevented the spreading of **Pests** and **Diseases**.

In all districts the hops have reached the height of the trellises and show to some extent already an overhang. A plentiful growth of **Laterals** is to be noticed. The aspects of the forth-coming crop must be judged very favourable. In general the plants are about 10 days ahead against last year.

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At the present time it is not assumed that through a violent storm or other climatic conditions the expected large crop will be substantially influenced. According to information a good growth of the hops is also noticed in other countries of the world.

**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.

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