

HOPSTEINER – NEWSLETTER

FEBRUARY 2011

TECHNICAL SUPPORT




Hopsteiner®

COMMITTED TO THE BREWER.

Hops present no risk of contaminating beer with mycotoxins

Mycotoxins are a diverse range of molecules that are harmful to humans. They are secondary metabolites secreted by moulds, mostly *Penicillium* and *Fusarium*. Because of their antimicrobial activity it is most unlikely that hops could be considered a source for mycotoxins. In order to confirm this we again monitored the situation concerning residues of most toxic mycotoxins by screening hops after the last harvest. In our investigations, all major European varieties from different growing areas were considered. To guarantee a representative analysis, ten samples of large lots were selected and then combined into one composite sample for each variety. These results for the 2010 crop are presented in the table below.

Mycotoxin analysis has been conducted at the Technical University Munich ("Bioanalytik Weihenstephan"). All concentrations given are mg/kg. This recent data for the 2010 crop confirms the conclusion from results already published earlier: "In no instance could aflatoxins or ochratoxin A be detected in hops" (see Brauwelt International 2004, pp. 302-305).

| Hop Variety | Ochratoxin A | Aflatoxin B1 | Aflatoxin B2 | Aflatoxin G1 | Aflatoxin G2 |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|
| Spalt Spalter | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Tettnang Tettnanger | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Tettnang Hallertauer | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Hallertauer | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Hersbrucker | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Spalter Select | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Hallertauer Tradition | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Perle | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Northern Brewer | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Hallertauer Magnum | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Herkules | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Hallertau Hallertauer Taurus | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Elbe-Saale Hallertauer Magnum | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Saaz Saazer | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Slovenia Aurora | < 0,0005 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |

If you have any more questions, just contact our experts!

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