## HOPSTEINER | NEWSLETTER 04/2018

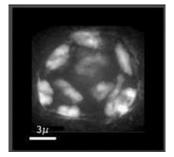
HOPSTEINER DISCOVERS WILD GENETIC ANOMALIES IN HOPS BREEDING PROGRAM

The goal of the Hopsteiner breeding program is to develop competitive hop varieties for efficient and resource-saving hop growing and establish them on the relevant markets. The program was created to develop new, top quality, grower and brewer friendly as well as disease resistant hop varieties.

The only way to master all the demands is to implement the latest research methods. Scientists at Hopsteiner, in collaboration with Florida State University, play a leading role on the international stage to examine specific characteristics in the hop genome.

The findings brought light on long-standing questions concerning the unusual transmission genetics and phenotypic variation in hops with major implications for breeding, cultivation and the natural history of hops.

What was discovered after having placed DNA strands from a male sperm cell sample under a laser florescent microscope can only be described as a genetic mystery. At first glance, atypical whole chromosome shapes were observed. At the late meiotic prophase, the chromosomes should have been paired in twos with donut-like shapes (Fig. 1) — but what was discovered here were chromosomes that were linked together in long chains (LC) and rings (Fig.2).



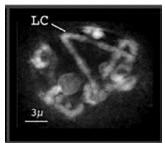


Figure 1

Figure 2

Offspring from such strange behavior can be less viable or show unexpected traits. It is essential to understand the aberrant behavior in order to make substantial new progress in hop variety development.

Tour 2018

**HOPSTEINERFORUM** 

To learn more about Hopsteiner's discovery please read the full research report: <u>https://dl.sciencesocieties.org/publications/tpg/pdfs/10/3/plantgenome2017.04.0032</u> or visit hopsteiner.com.

Simon H Steiner Honlen GmbH S.S.S.teiner Inc.

COMING UP SOON!

Newsletter, April 2018



EVENTS APRIL

APRIL,  $8^{TH} - 11^{TH}$ 

Trends in Brewing

APRIL,  $11^{TH} - 12^{TH}$ 

Salon du Brasseur

APRIL, 13<sup>™</sup> - 14<sup>™</sup>

Beer Craft Bozen

APRIL, 24<sup>TH</sup> - 25<sup>TH</sup>

24. Dresdner Brauertag

APRIL, 30<sup>TH</sup> - MAY, 3<sup>RD</sup>

CraftBrewers Conference, Nashville

EVENTS MAY

МАҮ, 9<sup>тн</sup> - 11<sup>тн</sup>

Craft Bier Festival Regensburg

MAY, 22ND - 25TH

BEER INTERNATIONAL FORUM 2018

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