



## Hopunion CBS, LLC

### US MAGNUM

<b>Pedigree</b>	Bred at the Hop Research Institute in Hüll (Germany)
<b>Maturity</b>	Late
<b>Yield</b>	1900 – 2000 kg./ha. or 1340 – 1700 lb./ac.
<b>Growth Habit</b>	Good
<b>Disease/Pest Susceptibility</b>	Good resistance to wilt and downy mildew, susceptible to powdery mildew
<b>Pickability/Drying/Baling</b>	Below average
<b>Cone-Structure</b>	Large cone
<b>Lupulin</b>	Plentiful
<b>Aroma</b>	No real distinct aroma character, so is viewed favorably as a clean bittering hop
<b>Alpha Acids</b>	12 – 14% w/w
<b>Beta Acids</b>	4.5 – 6% w/w
<b>Co-Humulone</b>	24 – 28% of alpha acids
<b>Storageability</b>	Very good alpha acids remaining after 6 months storage at 20° C
<b>Total Oil</b>	1.9 – 2.3 mls/100 grams
<b>Myrcene</b>	30 – 35% of whole oil
<b>Humulene</b>	34 – 40% of whole oil
<b>Caryophyllene</b>	8 – 12% of whole oil
<b>Farnesene</b>	<1% of whole oil
<b>General Trade Perception</b>	Gaining increasing acceptance as a clean bittering hop.
<b>Possible Substitutions</b>	German Magnum, possibly Horizon
<b>Typical Beer Styles</b>	Good bittering hop for all Ales and Lagers
<b>Additional Information</b>	Limited acreage in the US, but widely grown in Germany.
<b>Personal Notes:</b>	