



PIONEER

The monthly newsletter from



HEADLINES

GETTING OUT INTO THE COMMUNITY

Development Director Chris Mills recently spent a fascinating afternoon talking to Year 5 pupils at a local school about careers in science and engineering. Chris spoke mainly about the malting machines and lab equipment made by CLP but couldn't resist demonstrating the anti-oxidant qualities of Hydro-Cool hydrogen rich water.

After a little hesitation the teachers tasted the water and thought it tasted better than normal – while the children all wanted several bottles to take home!



YEAR 5 CAREERS SESSION CLP



Learning about science, crops and machinery with Custom Laboratory Products. Thank you Chris for the cool experiment! (from the School twitter feed)



OUR LATEST VISITORS

We were delighted to welcome Martin Waldock on a visit to see our pilot plant in action earlier this month. Martin hails from Hill Farm near Taunton in Somerset, UK and is keen to re-establish craft malting in the area – the local malthouse having closed as long ago as 1915!

Also here to inspect the Micromaltings he'd ordered was Alan Brown, of Baird's Malt, one of our most valued customers.





WAVING OFF MORE MCHINES

The photo shows a consignment of Micromalting machines beginning their journey to a very prestigious client in the USA.

We're not supposed to name them but there is a clue elsewhere on this page!

Our workshops are currently working flat out to fulfil orders for India, the UK and other US clients and we hope to have several more from Europe within the next month or so.



Here's a sneak preview of the new hand-held App, available for IOS and Android, which allows our PLCs to be controlled remotely – more details to follow in future editions

Continuing our world-wide theme, we were very pleased to welcome Chris and Susan Duffy, who travelled all the way from Australia to take a look at our Pilot Plant, which they are thinking of using for their bakery - and also to get into craft beer, alongside their existing wine business



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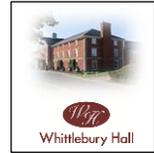


@maltingbox





NEWS FROM AROUND **eozone** group



Hydro-Cool customer Mrs S.A. has a combined hydrogen and ozonated water machine and recently offered us a glowing testimonial. We were so delighted that we thought we'd reproduce it in full:

"We have a 6 year old child who has enormous sensitivities and allergies both nutritionally and environmentally. Since his diagnosis a few years ago we've been doing a variety of therapies, medical changes and health research largely with him in mind. And it was because of him that we've completely adapted our home life and household set up to be as clean, healthy and toxin free as possible. We learned about the many benefits of ozonated and hydrogen rich water for numerous ailments and illnesses, and for overall health and well being. The variety of uses was also very appealing - from drinking it, using it to get pesticides out of fresh produce and cleaning surfaces around the house with too. AquaOzone came highly recommended by a holistic health care specialist and we decided to purchase a hydrogen and ozone water system for our house.

We've been delighted with the system, we use it consistently throughout the day for washing our fresh produce and meats. We use it for many cleaning functions around the kitchen and whole house. I've even used it effectively for cuts and scrapes on my children in order to disinfect the wounds.

We use the hydrogen water to drink all the time.

The multi functional uses and benefits of the tap are enormous and it's wonderful knowing that we're keeping our family as healthy and safe as possible using a non toxic and an incredibly healing water mechanism for our home and children.

We feel the advantages of this brilliant water system are enormous and the huge variety of uses and health benefits will appeal to everyone.

Meanwhile, MKDons are keen to extend the use of the hydrogenated machines into next season and beyond, while trials continue at Whittlebury Hall Hotel, with outstanding results



eozone Engineering's amazing new range of Vent Ozone Destroyers (manufactured by CLP) are proving very popular with the UK's major water companies and a number of the largest European suppliers.

More details to follow in future editions but these machines are significantly more efficient and effective than the ones currently installed in water plants all over the world and we know they are going to become very big sellers!





From Our MALTING EXPERT ...

Our regular series of insights and ideas relating to malting and brewing, from Hugh Alexander

Hello everyone.

As usual for CLP, there are lots of different aspects of malting and brewing going on.

This time I want to tell you about our CM250 Pilot Plant and how it is fitting into a real niche between laboratory micromalting and big plant production. As I see it, it is fulfilling that function as a bridge and giving us an insight that both other systems allude to, but can't prove.

I am very lucky to have such a plant to use. Two weeks ago we covered the system with a variety of temperature, humidity and other sensors. You can't do that to a micromaltings, and the health and safety officers in big plants would have nightmares trying to work out the safe operating procedures to allow such a thing to happen (that is, it probably wouldn't happen!)

As usual with a new idea, the results obtained have asked more questions than they answered, but in doing so have stimulated a quest for more knowledge. The steep data gave results which showed that temperatures generally increased during the first air rest. Ok, this was known, but the nature of the temperature profile tied in with other aspects of how the machine operates, and as such has shown us a new way to monitor and better control this aspect of the steep cycle. As this is commercially sensitive data I won't go into detail, but for the serious I'm sure Chris can find a way to divulge a more detailed release!

Again, in the germination vessel, having all these sensors showed a surprising pattern of data. It is so pleasing to be able to carry out monitoring tests like this. In all the tests we were gathering data at one second intervals, and so had a huge amount of information to analyse.

This enabled us to pick out accurately where the control processes were functioning and demonstrated that overall our germination control is to +/- 0.2 ° C. We can even see where different parts of the system come in and out to effect this level of control. Ok, that's the nerdy bit over.

Over in the brewery section, we finally got to brew with the four varieties of barley, which we had malted in an identical steeping, germinating and kilning program. All four were mashed, hopped and fermented in an as identical fashion as we could manage.

I am not going to reveal the varieties yet, we want any sensory analysis to be obtained in as blind a fashion as possible. I will say that the four went to fermentation at 1054.4, 1054.4, 1054.0 and 1054.2 OGs, all derived from the same weight of malt and volume of brewing liquor for all four. All four were pitched with Wyeast 1028 London Ale yeast, all pitchings derived from the same culture propagation. We will be bottling in about ten days time, and if anyone (fairly local) wants to take part in the sensory analysis, please let us know. There are a limited number of bottles of each. The beers produced used just this malt, without any speciality malts or syrups. The malts were prepared as pale ale malts.

I have sufficient malt left of each variety to do another set of brews, this time using 5% crystal malt in the mash tun as well as the four varieties. This will show just how important using speciality malts is in determining the flavour of the beer, and how important it is for your kiln to have the ability to make crystal and dark malts.

That's all for now. Back to bottling.

