



STOCKBRIDGE TECHNOLOGY CENTRE LTD SUMMER NEWSLETTER

We have continued our efforts to bring work to STC. With Defra funds almost dried up for Horticulture or directed to the privatisation commitments made to Warwick and East Malling, then LINK remains the only real avenue. However, Defra research department has been completely reorganised across the Defra sustainability targets and is very much now about cross sector issues such as water. I have heard it presented twice and have yet to understand. I think many Defra people are also in my state of confusion. This is also causing uncertainties in the LINK structures, so funding of new LINK projects are likely to be delayed and frustrating. We are however, working hard to get known at regional level, both with Yorkshire Forward and Natural England, who will be responsible for the delivery of Defra sustainability and the EU Rural Development funding to the regions. This involves trying to offer our farm as a demonstration centre both for grower/farmer information about the Govt schemes and how they work but also what Govt environmental expenditure means to the taxpaying public. To this end, we have produced a brochure of our conference and meeting facilities and we opened the farm as part of LEAF national farm day as a trial run. We will open again in September as part of British Food Fortnight . We should get an article in the NFU Farmer and Grower, July edition, which will tell you about some of the "attractions". Pat Croft and Julie Langdale are developing this area with Micky Langdale and no doubt will write something later in this newsletter.

Our other public funding comes mainly from HDC and we continue to attract projects to investigate specific areas of concern for growers. It is more difficult to develop more concepts like the cucumber high technology project, because other sectors seem to find it difficult to agree on the technology they would like explored, to take their sectors forward. This is in some contrast to what is happening in Europe where growers are still using their research and field centres as drivers for excellence. Maybe we have been there and do not see the need as our larger companies have specialists who can take ideas forward inside their own groups. There is also the British aversion to group working. It shows also in marketing and is a problem in accessing funding from the Fruit and Veg regime. Basically I believe one needs to expose best practice for all, with our public and levy funds. It is then up to the individual business to take it up. This creates a viable industry rather than a few viable businesses. I hope other sectors will study the Cucumber Growers' Association initiative and start to use their research and development facilities for their overall benefit. The gaining dominance of Universities as part of our research base without the extension service Scottish model means students and world students benefit but it's a long filter down from them to the farm or nursery.

The oil price is causing us stress in line with the industry. Our heavy oil steam boilers have been reasonable but we now must consider the costs of keeping the mains charged. It is probable we will change to some four smaller boilers around the site to give us the same flexibility, but without the steam mains. We have no gas so it will be light oil fuelled. Alternative fuels would be too difficult to manage for trial houses.

Julian continues to run our schools work and he will update you on some of the issues

Professor Bill Davies from Lancaster University has joined the STC Foundation Board and we very much welcome him and of course the expertise he will bring to the STC operation.

We have on a number of occasions, debated the way forward for the Cawood site and facilities. As you know, it basically belongs to the industry with STC Foundation and its Board

keeping a watching brief and STC doing the commercial work. STC Foundation is a company limited by Guarantee and can not distribute surplus, all of which has to be retained and reinvested. STC Foundation owns all shares in STC Ltd so controls that company. It could be we develop a membership concept where growers become "supporters" and have more say in strategies, obtain certain services in preference or discounts like plant clinic/analysis services. There would be member's days and so on. These types of arrangements existed before MAFF absorbed the older research centres to create NAAS (ADAS). So John Innes, East Malling and Cheshunt. With the basic withdrawal of Defra and many facilities being associated with universities the technology facilities are getting rather few and far between. I would welcome your views on this wider "ownership" and in particular whether you see a need for places like Stockbridge to act as technology/information centres for your industry.

Graham Ward OBE

Schools Activity

As well as nearly 400 children coming to grow their own salad and vegetable crops at Stockbridge in 2006 we are also developing other services for schools. These include:

- Hosting school visits for science projects
- Visits by school gardening clubs
- Food days – showing children how food crops are grown
- Environment workshops – looking at composting of green waste and bugs under microscopes

All have been well received and we hope that we can offer some of these on a fee basis in 2007 and beyond. Recently we had 250 children over 2 days from a junior school in Castleford. All the children took home plants for growing on and also some fresh produce. Teachers and helpers were also very keen to get their free 'goodie bag'!

We have had good discussions with several regional organisations about offering more services to schools and going regional with our school growing project. Watch this space!

Agronomy Trials Update

Glass and field trials continue in our traditional business areas including:

- Comparisons of compost and mulch materials
- Testing new products for amateur use
- Further testing of Terraseed products for baby leaf production
- Cultivar trialling
- Crop safety testing of agrochemical products according to OECD guidelines
- Efficacy testing of insecticides for caterpillar and thrip control
- Growing novel crops for the healthcare market

New projects

We are now seeing the rewards after 5 years of trying to develop business with several major companies in the York area. New projects are underway in the field and they are also interested in using some of our glass facilities. This will provide a useful income stream over the next few years and could lead to an involvement with other areas of their business.

Julian Davies

Lettuce Production in Floating Hydroponic Platforms

Conventional production of lettuce in the soil is under threat for a variety of reasons, not least due to the ongoing issues of pesticide residues and nitrates, especially during low light conditions during the winter months. One possible solution for many of the industries problems would be to move out of the soil into some form of hydroponic system. It seemed logical therefore to consider an investigation into 'deep water' or 'floating hydroponic platforms' for future lettuce (and other crop) production. Apart from providing an immediate solution to the pesticide and nitrate problems such a system would also eliminate peat inputs to the crop and potentially also reduce labour costs whilst increasing crop production significantly/unit area.

Following earlier discussions Organitech Ltd, Israel offered to install such a platform at STC Ltd at their own cost to allow a demonstration and R&D facility along similar lines to the CGA all year round cucumber project. We therefore invested a significant amount of time, including a brief visit to Israel, to put a proposal together for HDC funding to take the idea forward on behalf of the industry through the Lettuce Technology Group. However, for a variety of reasons, it has proved extremely difficult to reach consensus within the lettuce industry as to the most appropriate way forward for this sort of technology. As such, a full proposal submitted to the HDC at the last Protected Crops Panel meeting was unsuccessful. We are now in further discussions with the industry to see if we can find an alternative approach to allow us to proceed with some sort of 'deep water' demonstration facility at STC in the future. We will keep you posted of further developments in this area. In the meantime, if anyone has ideas and would like to discuss potential options please contact Martin McPherson on 01757 268275.

Dr Martin McPherson

After a relatively quiet start to the season the Crop Protection department are now in full swing with a range of field and glass house trials underway.

The initial glasshouse trial sponsored by the HDC to investigate Root Mat in Tomatoes (PC241) is now up and running at STC. The technical side of the trial design involving the installation of 6 slow sand or rockwool filters has proved a very complicated and expensive task. However, thanks largely to the knowledge and skill of Mike Bradbrook here at STC the trial is now well underway and we are hopeful of a good result.

Further investigations into the cause of root malformation disorder (RMD) in red beet are also being carried out at STC this season, also funded by the HDC. We are hoping to be able to inoculate young seedlings and recreate the symptoms in order to prove our hypothesis that RMD is caused by a systemic infection with downy mildew.

However, our efforts are being hampered by the lack of d. mildew in red beet crops this year, due in part to the increased use of fungicides to control foliar infections. If any readers spot downy mildew in crops of red beet or sugar beet please contact us as soon as possible.

The diagnostic clinic has been very busy of late with the usual variety of samples from the UK and abroad. The number and variety of samples and their associated diseases provides us with an excellent method of monitoring any potential 'hot issues' that might be building up in the horticultural industry and this is invaluable in terms of formulating ideas for new areas of research.

Cathryn Lambourne

The Farm

Sunday June 11th was Britain's first National Farm Open Day and farms all over the country opened their gates and invited the public in. Stockbridge Technology Centre was one of them.

We invited the public to see all of the ecological measures we have put in place to enhance the countryside and to encourage predatory insects, birds and other wildlife. We provided visitors with a route to follow which led them to specific points of interest, which were then detailed on an information sheet. Home made refreshments were gladly received in our conference room where we also sited displays on farm birds, CSS and ELS, 5-A-Day, LEAF, FWAG and Red Tractor. Not one visitor was aware of the Red Tractor logo and its significance, a fact which needs to be urgently addressed.

Children were given a quiz to complete as they went around the farm. Answers were so good that each child received a small prize. We know to make questions much harder next time!

Visitors were asked to complete a questionnaire before leaving. We were extremely pleased to read such positive comments. It motivates us even more to improve our facilities here and to provide educational visits on a regular basis.

Elsewhere on the farm the winter wheat, barley and field beans have all received their final fungicides. This year we had no significant levels of orange blossom midge on the winter wheat. On the glass we have planted 3 commercial units with cucumbers. We have commenced harvesting this week. Our seed cauliflower production is well under way. Early crops have finished flowering and are podding well. The late crops are still in flower with flies being introduced on a continual basis to ensure pollination.

Michael Langdale

Bugs at Work

Our bid for a Rural Enterprise Scheme grant for an Information Centre and Tea Room relating to our BugsAtWork project has now been completed and submitted to Defra. Achieving the grant would allow the development of an area for educational displays, workshops, school's science with microscopes and insects. In addition, refreshments would be available in the Tea Room with sales of our sustainably produced vegetables and salads.

At the end of our LEAF organised Farm Open Day on June 11th we asked visitors to complete feedback questionnaires for us. The questionnaires related to what had been seen around the farm and the theme of sustainability and enhancing the countryside. The feedback was excellent. It was also vital to know how much visitors appreciated real "science" in action. This related to our biodiversity trial which is the main objective of BugsAtWork, demonstrating how we are trying to determine how best to maintain, feed and over-winter predatory insects which will then move into our vegetable crops and supply a level of pest control. Our biodiversity strips of wildflowers, grasses and beetle banks looked excellent and visitors could directly relate the role of predatory insects on our lettuce, pea and potato crops. This adds real impetus to the purpose of BugsAtWork and our educational role.

In addition to BugsAtWork, we are tendering for work as a demonstration farm, along with an upland and coastal farm. Tenders are being requested by the Rural Development Service (RDS)/Natural England (NE). The aim of the project is to address the NE national outcome for "a healthy and natural environment" with objectives of conserving and enhancing the landscape by biodiversity, geology, natural resources, cultural heritage etc. The farms must demonstrate some of the areas just mentioned to both the public and farmers during half-day walks. At STC we have worked hard to enhance the landscape and our areas of biodiversity are an excellent means of technology transfer.

Julie Langdale

Weather for March, April & May 2006

	March	April	May
Mean max. temp.	8.2	12.1	16.3
Mean min. temp.	1.7	6.9	7.7
Mean 10cm soil temp.	3.5	8.1	12.9
Mean 20cm soil temp.	3.6	8.1	12.6
Mean 50cm soil temp.	4.4	8.4	12.9
Total rainfall mm	90.0	34.6	108.3
Mean sunshine hours	2.7	4.9	5.4
No. days air below 0°C	10	1	0
No. days ground below 0°	12	11	1
Radiation MJ/m ²	232.54	391.37	479.7

For further information on the newsletter or anything else you would like to ask us, please call on 01757 268275, Fax 01757 268996.

