Research and innovation for commercial smallholders

Workshop at the Oxford Real Farming Conference 8/1/14 – facilitated by Phil Sumption of the Organic Research Centre

ORC led a workshop at the Oxford Real Farming Conference on Research and innovation for commercial smallholders.

The interactive session came up with a number of topics, from delegates, on post-it notes. Some of these might be research topics, others might be topics where the knowledge is known or the research has been done already, i.e. where training or knowledge dissemination is needed. What was clear was that there was a lot of knowledge in the room and networking and peer to peer learning is very important. ORC will be exploring ways of taking this forward through our Participatory Research Network, Field Labs, training programme and forthcoming information hub.

Table of research topics as suggested by delegates at ORFC 2014 workshop on smallholder agriculture

Topic	Priority	Knowledge known
How to encourage people to shop at Farm Markets - making 'on-site' markets viable		
Research people's food behaviour/ choices		
Food buying groups that connect groups of socially and economically marginalised people with affordable fresh local food. How to make it work financially for farmers & consumers	★★	
Behaviour change - eating local, fresh. How do we get people to eat fresh & local?		★
Innovative direct sales methods. Most effective methods for time/resource efficiency		
Research into marketing for commercial smallholders	★	
Alternative ways of resourcing the farm; exchange, loans, gifts, voluntary help, advice, seeds, bulls!	★	
Research to highlight the benefits of small-scale sustainable farming so it can be used to support policy changes (e.g. environmental benefits, low-energy input, local economy, more labour, biodiversity etc.)		
Who makes a living from their smallholding?	★	
Productivity of small-scale producers	★★★	
Quantitative evidence that small-scale producers are as/more productive than large-scale ones (like has been shown in developing countries: 70% food produced by smallholders).	★★★	
How much food can smallholders produce?		
Productivity of smallholdings - for advocacy		
Does permaculture produce 'commercial' output?		
Economics of sustainable and small-scale farming (and distribution), for new entrants	★	
Right livelihoods/ethical, profitable smallholding options		
Cost of production (for pricing)		
Winter storage of veg and fruit		★
How/where do smallholders fit in the food supply system		
Best/most effective way to deliver local veg to people as small-scale growers		

Topic	Priority	Knowledge known
Better understanding of the 'soil food web' - microbial life	★★★★	
Carbon sequestration rates/crop/acre for different soils	★★★	
Soil-building structure and carbo and organic matter		
Carbon sequestration and nutrient cycling in soil		
Soil micro-ecology - foraging and cultivation interaction		
Adapting for changing/unpredictable weather. E.g. what crops to grow? More perennials? Irrigation/growing without/with too much water		
Impact UK climate on horticulture. Is the only way polytunnel/glass?		
Crops and varieties for year-round production		
Sowing and harvesting times for ongoing productivity		
Low cost season extension (Hungry gap filling)		★
Watering systems - water harvesting, filters, solar pumps, how to keep seep-hoses working/clean?		
Water. Friend or foe?!		
Varieties resistant to drought and flooding		
Irrigation systems		
Flea beetle predators and damage reduction		
Statistical data on pest predation by beneficial insects/animals		
Cost effective weed control		
Training for effective weeding		
Intercropping		
Under-planting raspberries with green manures		
Alternatives to netting: Timing and sequencing of bird-scaring/deterrent regimes		★
Natural systems for avoiding weeding - materials, timing, varieties		
No-dig no-weed systems. Natural systems where more dense cropping is possible, allowing volunteer crops to grow alongside planted crops (on small-scale permanent no-dig systems, diversity = fewer pests and diseases		
Identification of promising plant 'guilds'/assemblies of mutually beneficial plants (perennials). Honing and further development of promising assemblies as modular units for commercial benefit.		
The commercial viability of producing boutique compost from a mixed temperate woodland farm i.e oak compost.		
Permaculture design process as applied to smallholder systems. What design processes and tools are most useful. What have been the benefits of taking a design approach?		
What is the best route to access existing research material on agroforestry? Particularly yields (compared with conventional farming).		
Evidence of nutritional parameters/benefits of organic produce (cf FSA report)		
Small-scale farms. How to utilise and manage pasture best with small acres.		
Conversion of pasture/grassland to horticulture		
On-farm seed-breeding methods		
Selling and producing dairy (raw) on small-scale without high input facilities.		
Monitoring and trials to test assumptions about farm or farming		

Topic	Priority	Knowledge known
landscape system change.		
To what extent is 'real farming', local and organic correctly connected to issues of social justice and should we be talking about them more? i.e. accessibility and price.		
Farming without fossil fuels. Huge food security and security issue.		
Cost to taxpayers of unsustainable food production.		
How can we work better with our farming neighbours?		
Can a network of growers be more efficient?		
Rebuild farming knowledge and skills. And how to successfully transfer it to non-background farming generations.		
Skill-sharing. Low or no cost		
Sharing the experience of failure so others might avoid yours.		
We are all experimental, training on methodology for more rigorous scientific approaches so we can share our knowledge, creating a research network.		
Competency of advice and quality assurance of above.		
The development of food production by therapeutic horticulture projects.		
Large-scale (6ha+) organic wheat without chemicals but using conventional machinery and labour and normal waste (sic).		
Approaches to involving volunteers and CSA members with different skills/interests.		
How to make cooking cool. Because the more we cook the less we depend on processed industrial food.		
On-farm dwellings - planning issues/strategies.		
Re:planning permissions. Who is successful for on-site dwellings and why?		

 Rated as a top priority by a delegate

 Considered by a delegate that the knowledge is known/research already carried out. i.e. a dissemination/knowledge transfer issue, rather than a research issue.

The Organic Research Centre welcomes comments, please email comment@organicresearchcentre.com

www.organicresearchcentre.com

Phil Sumption 10/1/14