

## Day One - Innovation and Technology in Urban Agriculture and Rural Food Introduction

Technology and innovation have always played a key role in agriculture. Since agriculture began almost 10,000 years ago, farmers have invented, shaped and shared new practices and techniques. Innovation and the use of technology continue to play a vital role in our ability to grow, process and consume food. All of us depend on the application of agricultural technologies and the ability to engage in innovation to continue to improve and refine our practices.



Technology is never neutral. The very tools that have allowed us to feed the planet have also contributed to many of the challenges we see in modern agriculture. Intensive farming, the growth in the size of farms, our dependence



on chemicals, the use of expensive, sophisticated machinery in every phase of the growing and harvesting cycle are all the result of technology and innovation. To often, the focus of innovation efforts and new technological developments is aimed at well-resourced, large-scale agricultural production.

However, technology and innovation should also be an important consideration as we look at urban agriculture and local food. When we think about technology and innovation in the context of urban agriculture and local food we need to think differently. Often, the solutions that work are at a very different scale. This session is intended to examine some of the tools, techniques and approaches that can strengthen urban agriculture and local food. More importantly, the goal is to stimulate discussion and thought about how we can develop new technologies and innovation to help our cause.

During the week we will be exploring a number of innovation ideas. These ideas are intended to spark interest and encourage you to ask the question

**“how might we apply these or similar ideas to support our own urban agriculture and local food activities?”**

In doing so you will be thinking like an innovator - we know that the best ideas tend to come from learning about what others are doing and, in turn, modifying and applying these ideas (or variations of) to solve challenges we are facing.

We have already covered a number of innovative activities, such as SPIN farming, CSAs, and sharing community production, in the previous weeks. I want to provide some additional examples. The week we will look at ways to:

- Encourage people, who may not have a gardening background, to become gardeners, even on a small scale. (Nourishmat)
- Develop new technologies to support existing innovations - a CSA app. (One Straw Foods)
- Explore approaches to applying tools to support local food production (remote sensors)
- Examine ways to use technology to develop more viable urban agriculture businesses (containers and rooftop gardening)
- Explore ways to develop innovative and responsive urban agriculture ecosystems (aquaponics and vertical farming)

These are not the only examples of innovation and the effective use of technology in urban agriculture and local food. In reality, they don't even scratch the surface. The cases that we want to present are intended to stimulate conversation and critique. They represent but a few of the really interesting innovations and technologies that are being developed and applied in communities everywhere. They are far from being comprehensive. But the best ideas often produce fodder for new applications at a local level.

As you explore these applications, always be asking yourself

- **“could these ideas work locally?”** and
- **“what other ways could we adapt or modify some of these ideas to deal with problems we are facing?”**