

Ideas Generation - what are the issues and opportunities associated with farm infrastructure and operations

Present at table 6:

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Exercise 1: Ideas and rational

- **Energy** - in an urban environment - energy input into production
 - o Costs, electrical, fuel types and different modes of energy need to be considered and are an important aspect of urban farming
 - o Different energy sources have different impact
 - o If using energy to produce food – teiring systems for energy costs
 - Consider different rates for different aspects of farming - e.g. energy for greenhouses
 - o Design your system so that it does not require mechanical inputs (design out the mechanization) – get away from the use of big machinery
 - Use of human power
 - o Renewable energy and natural building materials
 - Designing habitation and structures with radically reduced energy requirements, e.g. earthen structures (cob, etc), such that net zero power is consumed (and has low embodied energy) so that less reliant on the grid
 - Design infrastructure such that it is net zero energy use
 - o What is the potential for neighbourhood scale biodigestion/anaerobic digestion that provides energy and nutrients
 - Closing waste, energy and nutrient gaps
 - Adapting and improving upon existing infrastructure ideas such that they are Vancouver specific
 - Need to find a way to move past impediments
 - Need an inventory to ensure that feedstock is available
 - Important to adding value to waste products

- Need a case study on the potential for different energy options and MUST share that information with the wider urban farmer network (through renewable energy association, university)
- **Collaboration** of design and resources on an ongoing basis
 - o Question: how do we have collaboration at the design and purchasing phase so that we can have collaborative purchasing
 - o In order to share resources, experience, knowledge, buying power (buying club) and finding synergies
 - o In order to share infrastructure - such that people can share the infrastructure and the service (share infrastructure)
 - E.g. renting 'lit space' rather than buying the infrastructure
 - o Resource exchange, including items that may be a waste to one but a resource to others
 - Converting waste into resources - adding value to waste (to create closed loop systems)
 - o Online resource exchange - for reuse of materials and equipment
 - e.g. RCBC (recycling council of BC) data base and Biomass trader - to be partially funded by the City
 - **Existing but inefficient and consolidated system needs staff (update website, organize activities), better advertising, and better implementation
 - Identify other online resources and consolidate these into one place such that it is more efficient and better distribution
 - Would require a space
 - Could reduce overheads of local businesses e.g. saves on dumping costs and allow for sharing of building materials and equipment
 - Skill share and tool share
- Facilities and structures
 - o E.g. Book, Sol Diva (passive energy production)
 - o Cooperatively owned infrastructure/facilities (e.g. trucks, cooler, green houses, etc.)
 - o Train the trainer opportunities - a farmer training collective (available at very low cost, with initial funding from government)
 - Look at free university model or community kitchens model (to allow for easy access skills sharing)

Exercise 2: Idea Addition and Refinement - what other issues and opportunities are associated with urban farming in Vancouver...?

- BCIMEX - BC industrial materials exchange (from barrels to bubble wrap)
 - o A good resource to be aware of as a part of the resource/equipment sharing and exchange discussion
- Discussed supply side but not the needs of urban farmers
 - o Ongoing list serve is an excellent resource and source of information
 - Can information be archived? This would be useful if information is categorized and stored for later use
 - This is useful but needs to remain user friendly and accessible
 - Again, need resources to be consolidated into one place
- Build a neutral platform to allow for optimal communication, collaboration and sharing/trading
 - o Need access to collective/shared storage hub and workshop space
 - Need a common storage space
 - Shared infrastructure - e.g. walk-in cooler
 - Commercial tool-share (not just for private/residential use)
 - Space should also act as a community hub, to personally connect
 - Space/land could be collectively owned
 - Not only bulk buying but bulk storage
 - If running as a cooperative - money could be pooled for an employed position to manage the site
 - A co-op model is perhaps most desirable as a "neutral platform" or body, which is where the City of Vancouver can play a part - to provide an intern or employed position to act as a moderator of a virtual database and resource sharing platform. This would also help to ensure the network is more inclusive (across different racial and language barriers)
 - There is also, within this platform, the opportunity for small businesses to be promoted as an emerging sector and as a part of the Green Economy
 - Or simply working cooperatively amongst each other/farmers - e.g. where one farmer purchases t-tape and sells a portion of to fellow farmers
 - Point being - don't always need a centralized virtual or physical meeting space but can share amongst

those who have similar objects (collaborate where there are logical synergies)

- Design ideas (need a space to share that information – e.g. from experienced farmers to those starting up)
 - o Glen (farmer) discussed issues around building material for urban farms
 - Use of screws rather than nails
 - Issues around corners of raised beds

Exercise 3: Idea Clarification

- ‘Reduced mechanization’ - is to say design your garden system so that it can be maintained by hand_
- Resource exchange
 - o Questions around who will do this – suggestions include
 - The City of Vancouver
- Rather than owning space – space could be collectively rented (a small business model) whereby the owner is responsible for the maintenance of that space
 - o This could include the use of space that is periodically empty (underutilized and/or seasonally used). E.g. high school workshop space
- To clarify energy issue:
 - o Need to identify energy needs and options for alternative sources
 - o Should discuss energy and inputs as one issue (e.g. so that waste is considered within this system)

Exercise 4: Identify top three and number one issues – the needs of the urban farming community (priority areas for further discussion) around farming infrastructure and operations

Identifying the needs and opportunities for urban farming as they pertain to...

1. Energy, inputs and waste

- a. Integrated design of energy, inputs and waste systems that are

most applicable to the urban farming scale within a closed-loop

2. Facilities, storage and structures

- a. Availability of urban resources for urban farmers that includes facilities, storage and education
- b. Its not just access to them or the structure but the category of buildings storage and structures

3. Collaboration:

- a. The sharing of information, skills, materials, design and fabrication of farming systems
- b. Amongst farmers, builders and community partners

Number 1: **Collaboration**