

**Resources Available:**

Internet  
Research from organizations  
Student interest  
Networking  
E-organic

**Resources needed:**

Clearinghouse access-user friendly  
Clarification  
Financial Help  
Free information (have to pay for lots of databases)  
Access to more data

**Resources Needed:**

Institutional support: People, dollars, respect, validity of this field  
Integrate into “mainstream” curricula and programs (hort, ecology, biology, natural science, health/med/vet)  
Introductory text  
Credible references-more science behind practices, more research \$\$  
Space/land: practical farming & research, Hoophouses etc, animals  
Organic certification outreach, organic system planning help, record keeping, boilerplate samples and templates  
Farmers vs academic applications  
Education at various levels-community college

**What is sustainable agriculture:**

Difficult to define  
Action sustainable forever without stopping  
Sustain by feeding everyone on the planet  
Value-deeply connected to food, land, community  
Taking care of and nurturing the soil  
Maintaining local connections/resources  
Minimizing travel of inputs/outputs  
Doesn't deplete non-renewable resources  
Good for people, land, plants, and animals  
Needs to be productive  
Farmers and consumers share risks  
Maintains a human population in the rural landscape  
Way of life  
Social, economic, and environmental aspects all in balance  
Overused, sometimes used to delegitimize the concept  
Caring for the future of the environment  
Biodiversity

### **Who are we teaching and why?**

University students, graduate students, certificate students-how to farm hands on  
Our children  
Consumers-preschool through adults  
Reconnect people to food sources  
Urban farmers/community members  
Minority/underserved to obtain local food  
Dairy farmers-to use biological pest control  
“Unlocking the food”

### **Who are we training and why?**

Immigrants, bankers, lenders, insurance agents, ag students, beginning farmers  
HS students  
People with land  
Health care professionals, processors, foundations/philanthropists, funding  
agencies, government, pessimists  
Elected officials, women, administrators, unemployed, consumers, people seeking  
new careers  
Anyone/everyone

### **Why**

Build support  
Lack of knowledge  
Feed communities  
Feed themselves  
Quality of health and environment  
It's the “right” thing to do  
Part of the culture  
Because they have the land  
To be more like Europe  
Everyone interacts with ag and food

\*Need to more about sustainable ag: Bankers, lenders, insurance agents, elected  
officials, administrators, ag professions, researchers, NRCS/FSA

### **Student farms:**

University of MN: cornucopia market: plan years production  
Short on interns, long on students

### **Iowa State:**

Faculty advisor, undergrads and sustainable ag students, get involved for various  
reasons-want to learn, interested in food, various backgrounds-conventional ag, no  
qualifications to participate

### **Montana:**

School farm is a 2 acre vegetable farm, but most farms are large acreage of small grains, needs budget analysis

Marshalltown

Incubator formed-new farmers of all ages who don't want to farm corn & beans

Immigrant training (many former swift meat packing workers)

Market locally

Chickens, grapes, hogs

MSU

Long standing student farm <10 years

Base in community-consumer base

10 acres (4 in production, ½ hoop house)

4-yr students-paid/volunteer

Self-sustaining: funded through:

Certified-for credit-one year, whole operation non credit program (\$7400/student)

Sell through CSA (48 weeks, 20 week summer)

Dorms (salad greens)

Farm stand

Produce brings in \$125,000

Washington State:

3 acre organic farm

student run

Dairy, veg,

CSA-60 shares

Field days

Community engagement

Access to research

Institution gets some produce

Internship vs student run farm

Student farm-decision making

Motivation-person on internship

Internship paid, but 60 hrs/week

**Ways of learning and knowing:**

**Music/arts/visual**

Experience

Research & reading

Listening-learning from expert

Hands on

Group-brainstorming, dialogue

Tests

Inherited/generations

Multiple communication styles

Writing-story, play  
Through mistakes  
Travel

### **Experiential**

Intuitive/have a sense  
Fun/play  
Multicultural-should be inclusive  
Curiosity driven  
Ecological  
Humility of teachers  
Kinesthetic (touch/hands)  
Telling stories  
Nurturing

### **Failing**

Intellectually  
Spiritual  
Instinct  
Mimicking nature  
Observing  
Qualitative/quantitative research  
Tradition  
Internet/electronic

### **Alternative teaching & learning methods**

Hands-on experience early in programs before beginning academics  
    Pre-enrollment or preinternship  
    Dunk-tank method  
    Ag boot camp  
    Learn what you don't know before  
Preconference intensives on current issues  
Farmers as teachers  
Involve urban ag settings-students going to schools as teachers/facilitators  
Case studies: (Oregon state)  
    Grad students case study trough program of practical application  
    How research was relevant from beginning  
    Interviewing farmers to see how research fits  
Decision cases  
    Used as educational tools to understand complex problems  
    Open ended problems with no easy answer  
Cartoon format publications for non-english speakers or for different issues-start a farm in the city, non-traditional farmer

### **Program successes**

MSU Student organic farm  
    Provides sales: csa/farmstand/dorms

Teaching program-certificate program  
Self funded  
U of I Champaign-Urbana: soil ecology  
Publications in scientific journals and in larger community  
Will Allen-urban farms  
Inner city-educating about agriculture  
ATTRA  
Resources for farmers and educators  
Center for rural affairs  
Developing more farmers  
SAWG  
LSP