

Risk Management for Organic Crop Producers

Determining and Documenting the Acceptability of Organic Farm Inputs

**Developed by George Kuepper
Agriculture Specialist
National Center for Appropriate Technology**



Major Risk Management Areas for Transitioning & Experienced Producers*

- **Determining and Documenting the Acceptability of Organic Farm Inputs**
- **Preventing Contamination from Off-Farm and Obtaining Compensation for Damages**
- **Organic Weed Management**
- **Adequate Recordkeeping**
- **Budgeting for Organic Transition and for On-going Production**

* *As reported in an RMA-Funded Survey of IOIA Organic Inspectors, Spring 2005*

RISK AREA:

Determining and Documenting the Acceptability of Organic Farm Inputs

**Intentional
or accidental
application of a
prohibited substance
decertifies the
treated land
for 36 months!!**

Rule of Thumb #1

- If it is natural (nonsynthetic), assume that it is **ALLOWED** in organic crop production **UNLESS** it is specifically prohibited and placed on the National List under §205.602



Rule of Thumb #2

- All synthetic products (fertilizers, amendments, pesticides, growth regulators, etc.) are **PROHIBITED**, **UNLESS** specifically allowed and placed on the National List under §205.601



What is a Natural or Nonsynthetic Substance?

- **A substance that is naturally occurring in a plant, animal, or mineral form (includes crop residues, seed meals, manures, bone meal, ag-lime, rock powders, etc.)**
- **Also: Any substance created by naturally occurring biological processes (e.g., vinegar, *Bacillus thuringiensis* toxin)**

What is a Synthetic Substance?

- **Any substance that is formulated or manufactured by a chemical process (e.g., anhydrous ammonia, 2,4-D, glyphosate/ Roundup™, carbamate insecticides, etc.)**
- **Also: any natural substance that has been chemically changed (e.g., superphosphate, which is derived by treating natural rock phosphate with acids)**

Prohibited *Natural* Crop Production Inputs

- **Biosolids (i.e., sewage sludge) — §205.105(g)**
- **Prohibited under §205.602:**
 - **Ash from manure burning**
 - **Arsenic**
 - **Lead salts**
 - **Sodium fluoaluminate**
 - **Strychnine**
 - **Tobacco dust**
 - **Potassium chloride (restricted use)**
 - **Sodium nitrate (restricted use)**

Prohibited *Natural* Crop Production Inputs

- **Contaminated organic materials**
Examples include:
 - **leather meal (heavy metal chromium)**
 - **conventional cottonseed meal (pesticides)**
 - **broiler chicken litter (*if* arsenic contaminated)**
- **Genetically engineered
bio-pesticides, inoculants,
and other GE-derived products**

The Organic Input Minefield — Where It's VERY Easy to Make Mistakes

- **Fertility products labeled “Organic”**
- **Synthetic micronutrients**
- **Potassium chloride**
- **Liquid fish and seaweed extract products**
- **Products (especially pesticides) with inerts**

Help in Sorting through Materials

- **Read the Regulations:**

www.ams.usda.gov/nop

- **§205.203 Fertility & Nutrient Mgt. Standard**

- **§205.206 Pest Mgt. Standard**

- **§205.601 Nat'l List—Synthetics Allowed**

- **§205.602 Nat'l List—Nonsynthetics Prohibited**

Help in Sorting through Materials

- **OMRI Listing**
www.omri.org
- **WSDA Brand Name Materials List**
<http://agr.wa.gov/FoodAnimal/Organic/MaterialsLists.htm>
- **U.S. EPA Pesticide Labeling**
www.epa.gov/opppmsd1/PR_Notices/pr2003-1.pdf



FOR ORGANIC PRODUCTION

Help in Sorting through Materials

- Established, multi-product organic farm and garden supply store catalogs.

Examples:

- Seven Springs Farm Supply

www.7springsfarm.com/catalog.html#Orgcertinfo

- Peaceful Valley Farm Supply

www.groworganic.com

- To be sure materials are allowed:

CONSULT YOUR CERTIFIER

Documents You **Need** to Save

- **Product labels**
- **Purchase receipts**
- **Lab analyses of products**
 - may be required by certifier for some inputs
- **Soil or tissue tests when synthetic micronutrients are applied**
- **Any additional verification of allowability**
 - labels, material safety data sheets, or communications from manufacturers stating product ingredients

Be **Sure** to Record

- **Where products are used
(i.e., which crops and fields)**
- **Rates or amounts applied**
- **Application dates**
- **Target pests, when pesticides are used**

See ATTRA's Documentation Forms

Helpful Record-Keeping Tools

- **Organic Field Crops Documentation Forms**
 - *www.attra.ncat.org/attra-pub/cropforms.html*
- **Organic Livestock Documentation Forms**
 - *www.attra.ncat.org/attra-pub/livestockforms.html*
- **Organic Orchard, Vineyard, and Berry Crop Documentation Forms**
 - *www.attra.ncat.org/attra-pub/orchardforms.html*
- **Recordkeeping and Budgeting Workbook for Organic Crop Producers**
 - *www.attra.ncat.org/attra-pub/organiccropforms.html*

How to Avoid Confusion about Materials??

**REDUCE
YOUR USE OF
COMMERCIAL INPUTS**

Organic Management is...

**A systems-based
approach to farming
that reduces the need for
off-farm inputs
for most agricultural enterprises**

Conventional Mindset

**(Shared by Organic
Farmers focused on
Input Substitution)**

**A
GOOD
CROP**

**Off-Farm
Inputs**

Soil Base

Organic Soil Management

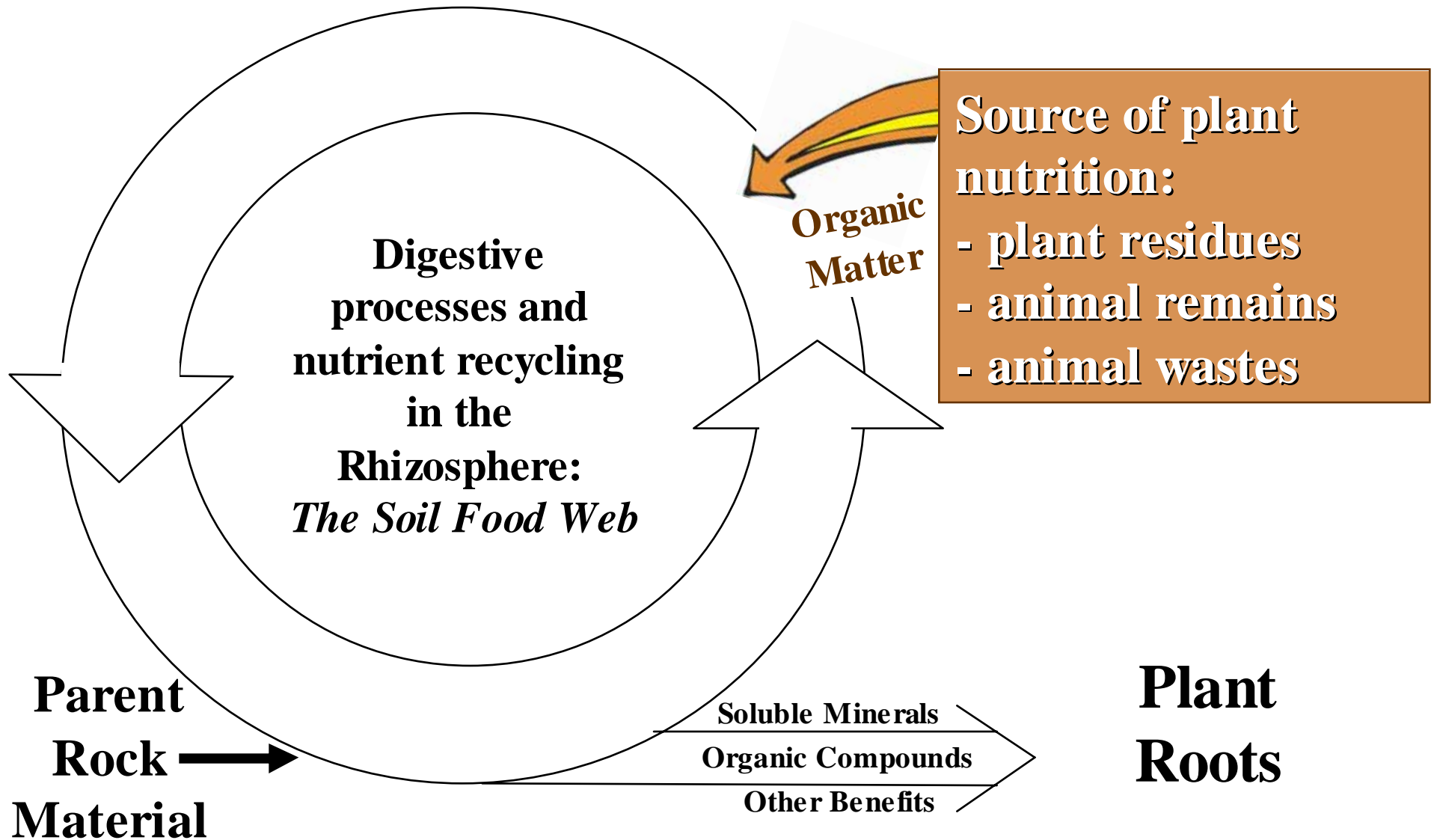
*Feed the Soil,
Not the Plant.*

— An Old Saying among Organic Farmers

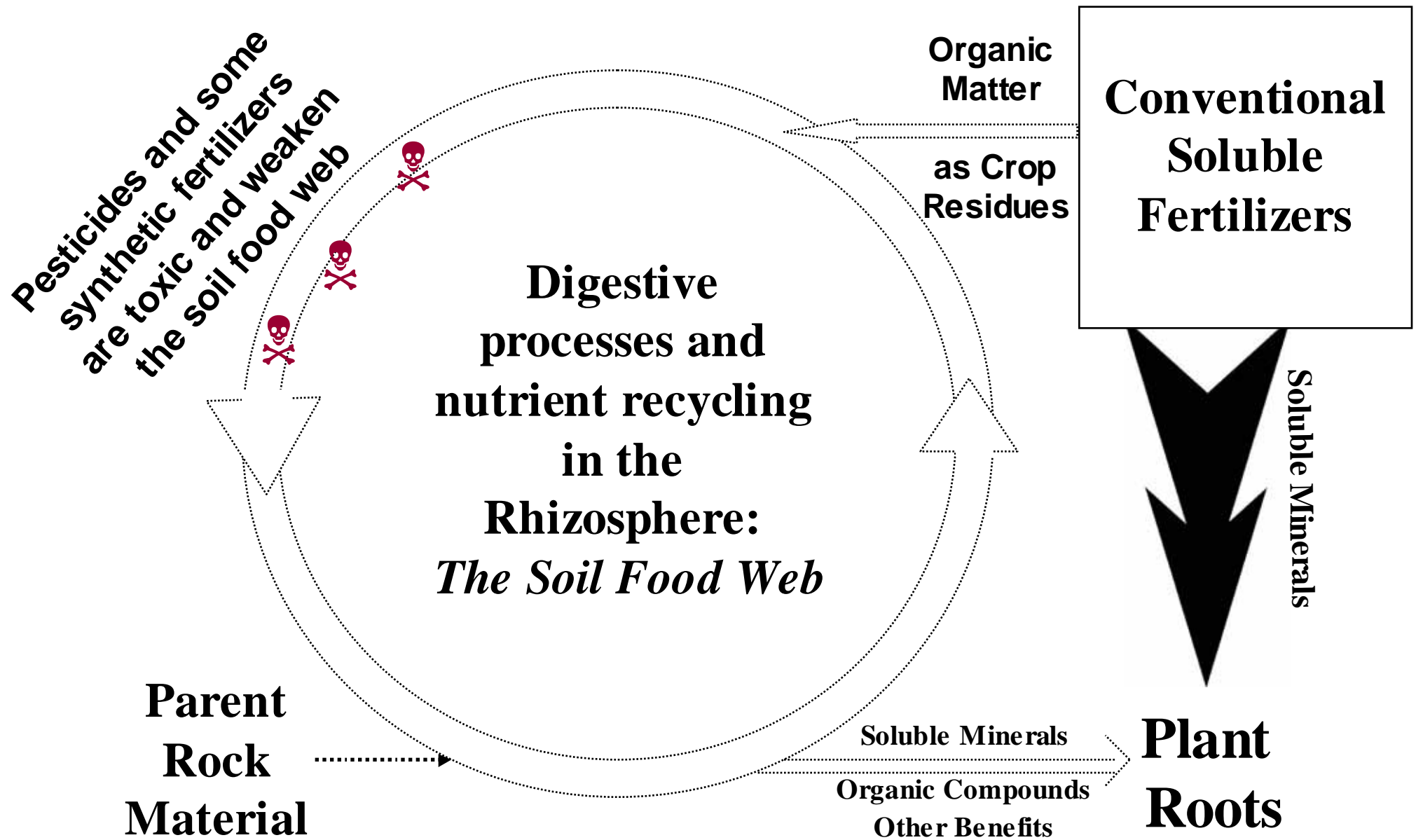
The Soil Food Web



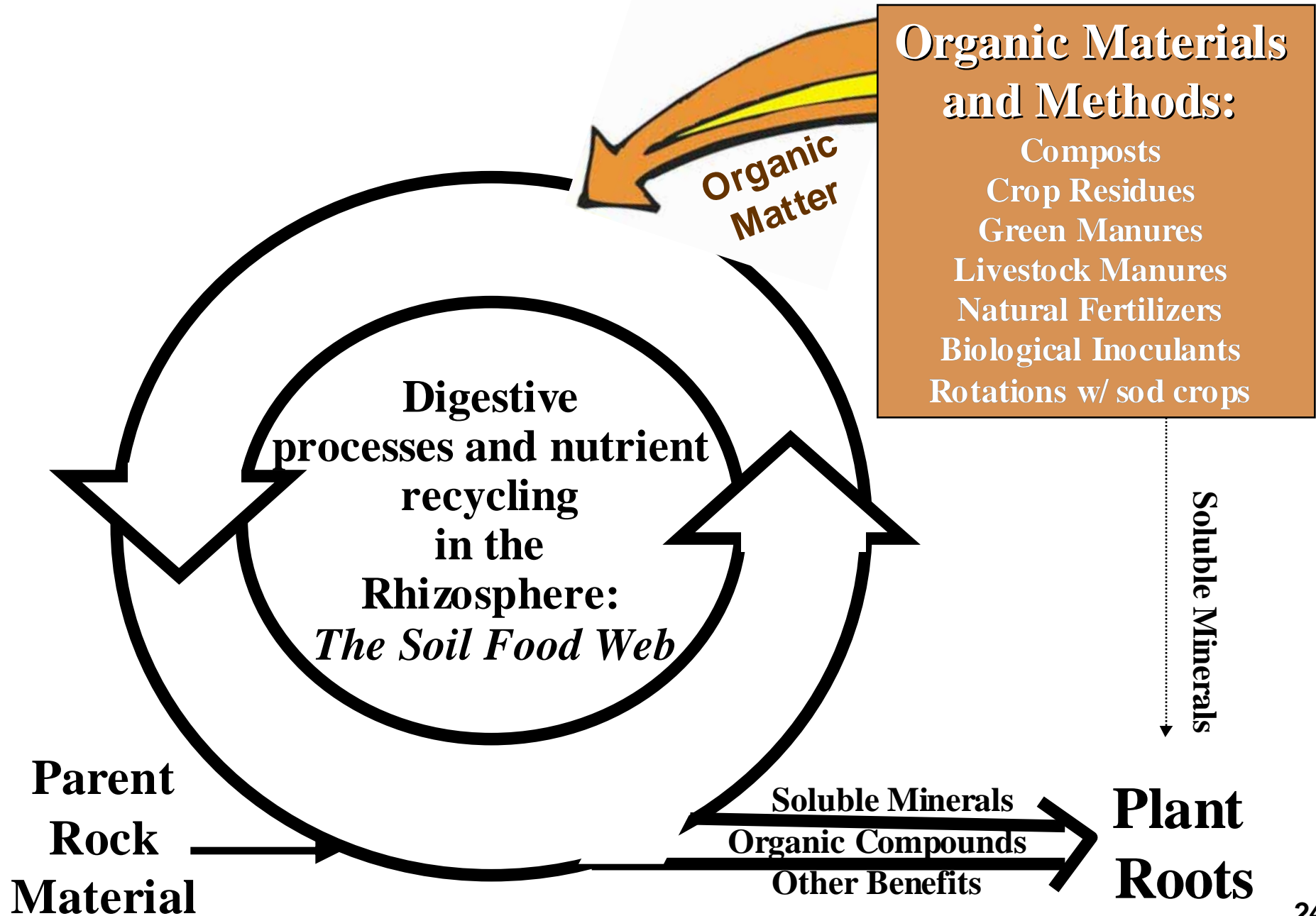
Plant Nutrition Under Natural Conditions



Conventional Management



Organic Management

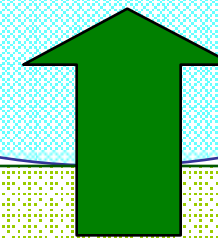
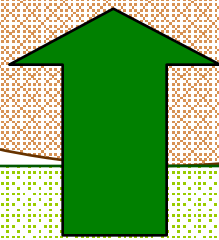
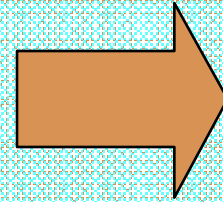


Soil & Soil Fertility Benefits

N self-sufficiency
Access to native fertility
Nutrient banking
Nutrient bioavailability
Reduced erosion
Reduced leaching
Soil water retention
Nutrient cycling
Better tilth

Pest Management Benefits

Innate resistance/tolerance
Induced resistance/tolerance
Disease suppression in the soil
Biocontrol above ground
Pest life-cycle disruption
Weed seedbank reduction
Shift in weed populations
Ease of cultivation for weed control



SYSTEM ELEMENTS

Crop rotation

Sanitation

Soil-building crops

N-fixing crops

Resistant varieties

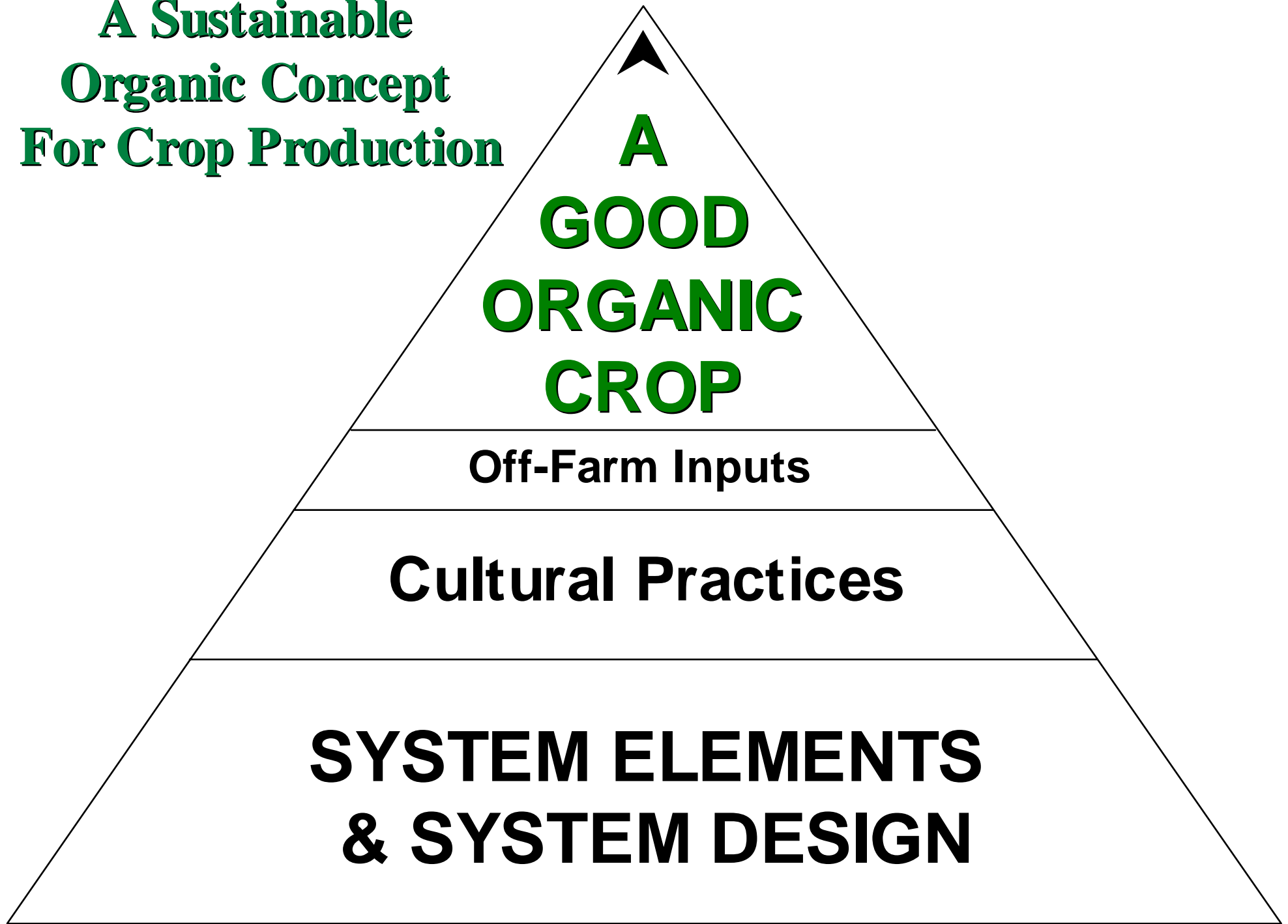
Soil/water conservation

Refugia

Reduced toxics

Manure/waste recycling

**A Sustainable
Organic Concept
For Crop Production**



Recommended Resources

- **Switching to a Sustainable System**
www.npsas.org/OrderForm.html
- **Transitioning to Organic Production**
www.sare.org/publications/organic/organic.pdf
- **Fundamentals of Organic Agriculture**
www.extension.iastate.edu/Publications/PM1880.pdf
- **Organic Crop Production Overview**
www.attra.ncat.org/attra-pub/organiccrop.html

What about Seeds & Planting Stock?

What are the Risks?

Failure to comply with organic requirements for seed and planting stock can lead to decertification of a single crop.

Land can be decertified for 36 months if treated or genetically engineered seed is used.

Seed and Planting Stock

- **Organic seed and planting stock **must** be used**
[§205.204(a)]
- **If not commercially available, untreated seed or planting stock may be used; **no GMOs****
[§205.204(a)(1)]



When non-organic seed or planting stock is used . . .

. . . certifiers require that producers make a good faith effort to find organic sources. Customarily, this means documenting contacts with at least three reasonable sources. Documentation can include catalogs, Web sites, phone calls, and letters.

— Resource: *ATTRA's Documentation Forms publications*

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Seed and Planting Stock

- Conventional seed treatments are **prohibited**, unless required by Federal or State regulations [§205.204(a)(5)]
- Organic transplants **must** be used [§205.204(a)]



ATTRA Resources: Organic Transplants

- **Potting Mixes for Certified Organic Production**
www.attra.ncat.org/attra-pub/potmix.html
- **Organic Plug and Transplant Production**
www.attra.ncat.org/attra-pub/plugs.html

Seed and Planting Stock: **Avoiding** the Pitfalls

- **Organic requirements apply to cover crops**
- **Seed for sprouting *MUST* be organic [§205.204(a)(1)]**
- **Inoculants must be non-GE**
- **Many commercial seed coatings are prohibited**
- **Perennial planting stock—consult your certifier**

§205.204(a)(4) is being interpreted in several ways

Finding Organic Seed & Planting Stock

- ***ATTRA's Suppliers of Seed for Certified Organic Production***
www.attra.ncat.org/attra-pub/altseed.html
- **OMRI-Certified Organic Seed and Planting Stock List**
www.omri.org/OMRI_SEED_list.html

Finding Organic Seed & Planting Stock

- **Save Our Seed's
Certified Organic Seed Sourcing Service**
www.savingourseed.org/pages/sourcing.htm
- **Cooperative Extension Resources;**
*e.g., Seed Production and Seed Sources of Organic
Vegetables, Univ. of FL Ext. Pub. HS981*
<http://edis.ifas.ufl.edu/hs227>

Documents You **Need** to Save

- **Seed purchase receipts**
- **Non-GMO declarations for non-organic seed**
- **Labels and non-GMO statements for seed inoculants**
- **Receipts and labels for all materials used if you produce your own transplants**

Be **Sure** to Record...

- **What is planted where**
(i.e., which crops in which fields or beds)
- **Planting dates**
- **Attempts to find organic seed and planting stock**

Helpful Record-Keeping Tools

- **Organic Field Crops Documentation Forms**
www.attra.ncat.org/attra-pub/cropforms.html
- **Organic Livestock Documentation Forms**
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- **Organic Orchard, Vineyard, and Berry Crop Documentation Forms**
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- **Recordkeeping and Budgeting Workbook for Organic Crop Producers**
www.attra.ncat.org/attra-pub/organiccropforms.html

Seed-Saving Resources

- **Save Our Seed project features on-line manuals for brassica, tomato, and bean seed production, as well as a manual on seed processing and storage**
www.savingourseed.org
- **International Seed Saving Institute has a free on-line guide to saving seed**
www.seedsave.org
- **Seed-saving and Seedsavers' Resources**
<http://homepage.tinet.ie/~merlyn/seedsaving.html>
- **Seed Savers Exchange links people who grow, collect, conserve, and share seeds of heirloom plants**
www.seedsavers.org

Risk Management for Organic Crop Producers

For more information, please contact:

**National Center for
Appropriate Technology**
PO Box 3657
Fayetteville, AR 72702

479-442-9824

www.ncat.org

**USDA Risk Management
Agency–Mississippi Regional
Office**
8 River Bend Place
Jackson, MS 39232

601-965-4771

www.rma.usda.gov/

**Reducing Transition and Compliance Risks for
Organic Crop Producers in the South**

