SUSTAINABLE AGRICULTURE - "NOT JUST FOR OUTDOOR GROWERS"

Tim D. Carpenter
President, American Greenhouse Vegetable Grower Association

Reprinted from the American Greenhouse Vegetable Grower, Vol. 20, No. 5

Sustainable agriculture is not just an issue for outdoor growers, but for greenhouse growers as well.

During the past few years, there has been a lot of interest in sustainable agriculture. There has been a lot written and a lot of controversy over this topic. Sustainable agriculture is not just an issue for outdoor growers, but for greenhouse growers as well. Sustainable agriculture is not just for organic growers.

Sustainable agriculture is not just for organic growers.

Organic growing and biological pest control are both sustainable agricultural techniques. Anything involving low input chemical fertilizers, low input pesticide, fungicide and herbicides is considered a part of sustainable agriculture. Most hydroponic vegetable and flower growers would not consider themselves a part of sustainable agriculture. However, let's look at the facts.

Hydroponic growers use less water per unit of product grown, than in any other farming practice. Hydroponic growers, in many cases, use less pesticides and fungicides than does any other farming method on a per unit basis. Hydroponic growers use no herbicides. Hydroponic growers use less chemicals per unit of production than does any other method of production.

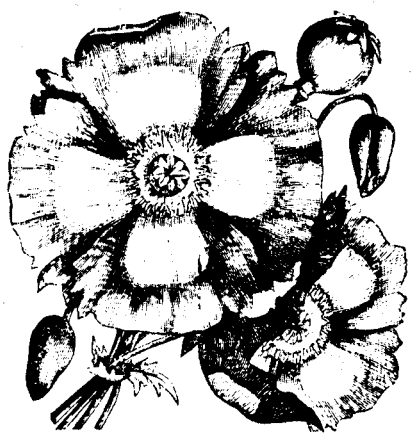
Those hydroponic growers who practice the "no drainage" environmental concept do not contaminate the soil, or ground water at all if they are careful in their procedures. Reuse of recirculated or leached nutrients is very possible and recommended for all hydroponic growers. Many already practice these procedures. Many people who do not understand hydroponics believe that a lot of chemical fertilizers are used. Let's look at the facts.

Organic growing and biological pest control are both sustainable agricultural techniques.

The normal dilution for hydroponic solutions averages about 1 lb of fertilizer per 100 gallons of water and about 90% of it is used up by the plant. This depends a lot on the water quality.

Taking the high side, a tomato plant uses about 1/3 gallon of nutrient laden water per day. Let's assume it is a long crop and is grown for 300 days and produces 32 lbs per plant. This then means that it takes only 100 gallons to produce 32 lbs per plant. This then means that it takes only 100 gallons to produce 32 lbs of tomatoes in a greenhouse and only 1 lb of fertilizer. This means that it takes only one quarter ounce of fertilizer to raise a tomato that weighs approximately 8 ounces. This sounds like a lot, but it really isn't because most of the nutrients are left in the growing media and plant tissue. Since many vegetables contain better than 95% water it is easier to calculate that the amount of solids in an 8 ounce tomato is 0.4 ounces, which is essential vitamins, minerals, protein and fiber. Most of the chemicals used in hydroponic growing (or any other method of growing), is used for the production of leaves, stems and roots. That is why composted agricultural waste products are such good natural growing medias. All we have to do is find a way to release these nutrients to the new plant. This is already being done through the use of natural organic products such as humates that is added to the synthetic soil mixes.

The AGVGA does support Sustainable Agriculture. We just haven't been aggressive in out support. Sustainable agriculture and the American Greenhouse Vegetable Growers have a lot in common. Let's look at the mission and goals of SAWG. Their original mission statement read: "The Southern SWAG is a regional network involved in sustainable agriculture and rural development which:



1. Empowers farmers to develop policy and implement programs resulting in economic and environmental stainability of our communities, and

2. Increase the capacity of each member group by sharing resources and collaborating on program development."

By the end of 1991 an ambitious list of long-term goals were defined:

1. To involve traditional farmers in the sustainable agriculture movement, in the policy-making process, and in settling research and program priorities of public institutions.

2. To expose grassroots farm leaders to a wide variety of options for a rural policy, including experience from other countries.

3. To expand out cooperative relationship with the Midwest SAWG in order to monitor both federal policy and new programs in other states, and to participate in a national dialogue on sustainable agriculture provisions of the 1995 farm bill.

4. To enable citizen oversight of land grant university extension, and economic development agency priorities; and work to ensure farmer and nonprofit agencies representation on boards and committees.

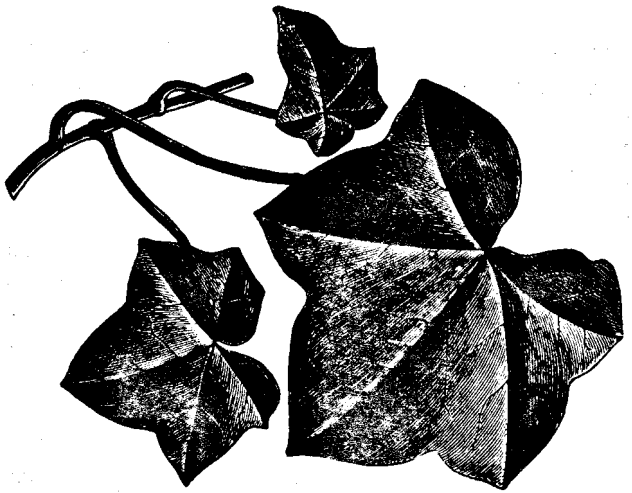
5. To develop a basis for cooperative programming between rural organizations in the region; maximize effectiveness by sharing staff and research resources; and increase the capacity of these organizations to create new public policies.

6. To cooperate in creating and expanding regional marketing opportunities for farm products produced using sustainable methods.

COMING EVENTS

April 11	Flower Growers meeting at Linder's Greenhouse in Lake Elmo, 9075 15th St. N, Lake Elmo.
June 13	Flower Growers fun night riverboat trip in Stillwater, $18/person, send reservations to Deb.
July 20-21	Trip to Ball's variety trials in Chicago, sign up early to reserve your space on the bus. Call Deb for further information.
July 24	Widmer Golf Tournament
July 26	J.R. Johnson's Trade Show
August 15	Flower Growers meeting at Rice Creek Gardens, 11506 Hwy 65 NE, Blaine.
September 12	Flower Growers meeting site to be determined.
October 10-12	Flower Growers Short Course at the Sheraton Metrodome.
November 14	Flower Growers meeting at Bergen's Greenhouse, 801 Willow St. W, Detroit Lakes.
January 9	Flower Growers meeting at Wagner Greenhouses, 6024 Penn Ave. S, Minneapolis.

This bulletin was compiled and edited by Dr. John Erwin, Assistant Professor and Floriculture Specialist, and Debra Schwarze, Extension Floriculture Assistant, Department of Horticultural Science, University of Minnesota, 1970 Folwell Ave., St. Paul, Minnesota 55108. Phone: 612-624-9703 or 612-624-0736, FAX: 612-624-4941. Opinions and opposing comments regarding the contents of this bulletin are welcome and encouraged. This bulletin is published in cooperation with the Minnesota Commercial Flower Growers Association and the University of Minnesota Extension Service. The bulletin is distributed to members of the Minnesota Commercial Flower Growers Association. Questions regarding membership in this organization should be directed to Dan Totushek, Dan & Jerry's Greenhouse, 3870 20th Street NE, Buffalo, MN 55313-9805. Phone: 612-375-0264.



MINN. COMMERCIAL FLOWER GROWERS ASSN.
MINNEAPOLIS, MN 55404

BULK MAIL
U. S. POSAGE
PAID
ST. PAUL, MN
PERMIT NO. 4170