WELCOME TO VCE MASTER GARDENERING!

GUIDE TO VCE MASTER GARDENER EDUCATIONAL PROGRAMMING AND RESOURCE AND REFERENCE GUIDE

Virginia Cooperative Extension

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REFERENCES


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This material has been prepared for the use of the VCE Master Gardener in his or her volunteer experience with Virginia Cooperative Extension. Portions of this publication are revised from Chapter 17 of *The VCE Master Gardener Handbook* (1994). Supplemental information for topics covered in this publication can be found in the *VCE MG Program Management Guidelines.*

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Guide to VCE Master Gardener Educational Programming and Resource and Reference Guide

For the VCE Master Gardener
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Welcome to VCE Master Gardener Training! The VCE Master Gardeners (VCE-MGs) are volunteer education partners with VCE, dedicated to working with the community to encourage and promote environmentally sound horticulture practices through sustainable landscape management (SLM). SLM provides many benefits, such as protecting water quality, improving air quality, and increasing property values; making your area a more attractive and desirable place to live and work. Through SLM educational programs, VCE-MGs provide knowledge and skills to youth and adults in the community.

Because of your interest in educating and improving your community through horticulture, you are joining a unique group of volunteers trained under the auspices of Virginia Cooperative Extension to provide an effective network of horticultural programs and activities to enhance communities, protect the environment, and educate others. In concert with Extension Agents, the VCE Master Gardener training provides you with the organizational and horticultural training to launch community horticulture education programs to benefit your locality. As a VCE Master Gardener, you will contribute to the improvement of horticultural practices in your community. You will also work with other organizations and agencies to share knowledge and coordinate efforts, thus providing the greatest benefit to the community.

As a VCE-MG volunteer, you are expected to work within VCE-MG policies to conduct educational programs with an identifiable goal, keep records, and report on progress toward reaching that goal and the impact on the quality of life in your community. These reports will be used to inspire other VCE-MGs to conduct similar programs, to solicit funds from foundations and industry to support your program efforts, and to demonstrate to local and state agencies the value and impact of VCE-MG programs.

The purpose of this Guide to VCE Master Gardener Educational Programming is to explain the history and philosophy of Cooperative Extension and the Master Gardener concept, and how to volunteer as a VCE Master Gardener.
INTRODUCTION
In all states where the program exists, Master Gardeners are trained and supervised through a partnership with Cooperative Extension, which created the Master Gardener training. When an individual works as a Master Gardener, he or she acts as a representative of Cooperative Extension. So, what is Cooperative Extension?

WHAT IS COOPERATIVE EXTENSION
Cooperative Extension serves as a link between land-grant universities and the community. Extension provides outreach to the average citizen and works to disseminate the latest information and research.

HISTORY OF COOPERATIVE EXTENSION
Prior to the Civil War, very few college curriculums addressed the problems of citizens who made their livelihood from agriculture. In 1862, Congress passed the Morrill Act, which provided for a university in every state that would educate citizens in agricultural and mechanical fields. These colleges are known today as “land-grant universities.”

Congress soon realized that to be effective, the educational function of land-grant universities must be supplemented with a research capability. Consequently, it passed the Hatch Act in 1887. This act provided for the establishment of facilities where colleges could conduct research into agricultural, mechanical, and related problems faced by rural citizenry. (In Virginia, VCE Master Gardeners sometimes assist with the research done at these research stations.)

Finally, in order to spread the benefits of the land-grant universities throughout each state, Congress passed the Smith Lever Act of 1914. This act provided for the establishment of Cooperative Extension. As a result of the Smith Lever Act, there are now Extension offices in every county in Virginia (sometimes in cities also) that serve to “extend” to the public the information developed on the campuses and research stations of the land-grant universities. In fact, Extension agents are members of the university faculties since their roles are primarily educational.

MISSION AND VISION OF VIRGINIA COOPERATIVE EXTENSION
Mission Statement of VCE: “Virginia Cooperative Extension enables people to improve their lives through an educational process that uses scientific knowledge focused on issues and needs” (Revised July 1994. Excerpt from the VCE webpages. Full text version at http://www.ext.vt.edu/about.vce/miss.html).
VCE is all about Virginians working with Virginians in communities, homes, and businesses. A product of cooperation among local, state, and federal governments, VCE operates 107 county/city offices to create a communication network among all the people of the Commonwealth. VCE representatives are Extension educators, led by local agent and campus faculty, taking knowledge from the land-grant universities of Virginia State and Virginia Tech and their nationwide sister institutions to everyday people with everyday problems.

Helping people solve their own problems through educational programs is VCE’s business. Help is provided through issue-based programs conducted in workshops, seminars and demonstrations, over the phone, in research-based publications, radio and TV programs, satellite broadcasts and interactive computer programs to reach people in their homes, workplaces, and local communities. What is taught varies from place to place as local people participate in the design, implementation, and evaluation of needs-driven programming. VCE is a dynamic organization advocating positive change, which will lead to more productive lives and vibrant communities.

Organization of Cooperative Extension

There are a number of components that make up the structure of VCE including the local offices and agents, local Extension Leadership Council, the district office, the state office, and Virginia Tech.

Local Extension Office

The local Extension office is the point of contact for the public and houses the local VCE Master Gardeners. Each Extension office or unit in Virginia conducts programs in three program areas: Agriculture and Natural Resources (including horticulture), Family and Consumer Science (FCS), and 4-H. An Extension agent is assigned to work with each area and can be funded by local, state, and federal dollars. VCE Master Gardeners generally work most closely with the Agriculture agent, but also use their horticultural skills to conduct programs in cooperation with FCS and 4-H agents.

Extension Leadership Councils (ELCs)

Each Extension office has a Leadership Council that is a partnership between local citizens and civic leaders who provide feedback and direction to ensure that Extension educational programs will be relevant in their community, will be forward thinking, and will combine VCE resources with others in an effective manner to meet the needs of the citizens. Many Extension agents ask VCE Master Gardeners to serve on these boards and others similar in nature. Educational programs conducted by VCE-MGs should be in line with the goals identified by the local ELC.

District and State Office

Virginia’s 107 Extension units are divided among six districts. District staff includes a district director (see Appendix A for a list of district director names and addresses) who provides administrative and program development assistance to the local unit offices. These six districts are, in turn, responsible to state-level administrators at the land-grant university. The state Extension administrators are liaisons between the state Extension service and the U.S. Department of Agriculture, which oversees and evaluates state Extension programs. (See the VCE Organization Chart, Appendix A for further detail.)

Virginia Tech

Extension units are also closely linked to Virginia Tech. In addition to administrative and program development assistance, the land-grant universities provide many other types of
support to the local Extension office. This is essential, since no Extension agent can know the answer to every question posed by the public. Consequently, universities employ experts, called Extension Specialists, in specific areas, such as horticulture, soils, turf, tree diseases, insect problems, etc. Specialists provide in-service training, subject matter support (written and computer materials), and other necessary types of support to agents in the field. They are responsible for statewide program development, design, and reporting.

In Virginia, most of the administrative and program development support for the VCE-MG program comes from Virginia Tech’s Office of Environmental Horticulture. This office is under the direction of Environmental Horticulture Specialist, Diane Relf, and houses the State Master Gardener Coordinator. The staff in this office address horticultural concerns of consumers of horticultural products and services through several venues, mainly The Virginia Gardener and Master Gardener training. Of specific concern to VCE-MG programming, the Office of Environmental Horticulture also develops materials and publications, such as *The Virginia Master Gardener Handbook*, for use by coordinators administering local VCE-MG training and VCE-MG volunteers who are coordinating education programs. In addition, the office publishes the quarterly *Virginia Master Gardener Leadership Development Newsletter*, maintains consumer horticultural information on the VCE Internet web pages (http://www.ext.vt.edu), and provides slides and videos for use in conducting programs (see Appendix F for a list of available resources).

**Volunteers in Extension**

Volunteer involvement is one of the most important and unique aspects of Cooperative Extension. This is in keeping with Extension's philosophy that active citizen participation in planning and implementation insures program success. Volunteers (non-paid staff working jointly with paid staff) are a valuable resource and an integral part of the education mission of VCE. VCE-MGs are part of this family of volunteers as they are education partners with VCE. VCE-MGs are NOT a clientele group of VCE.

In 1999, VCE was joined by 65,000 volunteers, including Master Gardeners, who contributed millions of hours to help VCE reach and teach more than one million Virginians. VCE works closely with hundreds of private and public sector agencies and organizations to complement and supplement our resources so that collaboratively, Virginia is better served.

The VCE-MGs provide a resource for all VCE program areas and for professionals from many other agencies. VCE-MGs provide communities with locally identified programs, including answers to individual questions via: hotlines and plant clinics; radio, newspaper, and computer links; educational programs to meet targeted needs, such as the establishment of community gardens for low income and elderly persons; education for the preservation of historic landscapes; urban tree planting programs; and guidance in making the natural environment accessible to all residents regardless of disabilities, incomes, or where they live.

VCE-MGs primarily interact in program delivery with an Environmental Horticulture Extension agent and/or Master Gardener Coordinator and the local Extension office. However, any Extension agent (state or locally funded) can act in an advisory capacity to VCE-MG groups and approve of the activities and programs chosen to be affiliated with Extension and conducted under the auspices of the local unit office. 4-H and Family and Consumer Science (FCS) agents are urged to work with VCE-MGs on relevant, gardening-based programs.
**Creation of the Master Gardener Training**

The VCE-MG training was created by Extension to meet an enormous increase in requests from home gardeners for unbiased, research-based horticultural information. This increase was a result of the urban and transient nature of modern American life. Fifty years ago, an Extension agent dealt with the questions of a few hundred farm families. In many regions, however, land that once constituted a single farm now encompasses several subdivisions, increasing the number of families an Extension office must serve by hundreds. In addition, many of these families are new to the area and are unfamiliar with the grasses, shrubs, trees, pests, etc. that comprise the microenvironment of their new urban, suburban, or rural homes. They often call their local Extension office for advice on what to plant and how to care for it.

Consequently, the VCE-MG training was created in 1972 in the state of Washington. Since then, it has spread to 48 states. VCE-MGs have become a vital part of Extension’s ability to provide consumers with up-to-date, reliable knowledge so they can enjoy and protect the value of the natural environment around their homes. In addition, VCE-MGs work with professionals, such as teachers, activity therapists, and others who work with people, thus carrying the benefits of horticulture to a much broader population than homeowners alone. The VCE-MG training has also become a fun and useful volunteer activity that has given its participants a sense of community spirit, accomplishment, and intellectual stimulation.

Extension Agents assume ultimate responsibility for VCE-MGs and teach many of the training classes; however, a VCE-MG coordinator is in charge of scheduling the training and day to day management. Depending on the level of local funding support, coordinators are either locally funded agents, locally funded technicians or equivalent, or VCE-MG or other volunteers who serve as program coordinators.

These coordinators serve as liaisons between the Office of Environmental Horticulture and the local VCE-MGs. They organize the local program so that through their efforts (or by delegation of responsibility to other individuals) training, supervision, and evaluation of volunteer VCE-MGs are provided. In addition, they ensure VCE-MG activities are initiated and/or maintained in each participating unit so that the VCE-MGs serve as a resource for effective programming for all VCE program areas.

**Program Financial Support**

The VCE-MG program is supported by several types of funds, primarily handbook sales and grant monies.

Upon acceptance into the VCE-MG training, each individual usually pays a supply fee, of which $65 goes to the Office of Environmental Horticulture for the purchase of a copy of *The Virginia Master Gardener Handbook*, the training textbook. In addition to the receiving the handbook, this purchase also provides registration of the individual in state records as a VCE Master Gardener, documentation of VCE-MG status for substantiating liability coverage for volunteer activities as an VCE-MG on behalf of VCE, and a subscription to *The Virginia Master Gardener Leadership Development Newsletter* for as long as the individual remains an active VCE-MG.

The handbooks are purchased from the Office of Environmental Horticulture at Virginia Tech. In addition to covering the cost of revising, printing, and shipping the handbook, these funds partially support the salary of the State Master Gardener Coordinator and travel throughout the state to provide training, advice, and support to local programs. The production of *The Virginia Master Gardener Leadership Development Newsletter* and the development of new VCE-MG program resources, including guides for volunteering as a VCE-MG;
management guidelines; advanced VCE-MG training, such as Tree Steward and Water Steward; and slide sets, are also supported by these funds.

Through sales of *The VCE Master Gardener Handbook*, VCE-MGs assist in underwriting the state MG College, and allow flexibility to seek grant dollars for additional program support. Reports on VCE-MG volunteer contributions and accomplishments are used to substantiate grant proposals for additional resource development and other forms of program assistance (hence, the importance of reporting VCE-MG accomplishments!) Combined, these efforts benefit the VCE-MGs directly by increasing support for expanding educational programs and the continuing development of horticulture information resources available to VCE-MGs and the general public.
SUCCESS AS A VCE MASTER GARDENER

WHAT IS A VCE MASTER GARDENER?
A VCE-MG is an individual who acts on behalf of VCE as a volunteer educator within his or her community after receiving specialized training in environmental horticulture through cooperative programming with VCE. These volunteer educators serve as partners with VCE to promote; inform; and work with communities, leaders, industry, and individuals by presenting programs on all aspects of horticulture to protect and enhance the environment, including turf, landscape, vegetables, trees and shrubs, and pest management practices.

BEING A VCE MASTER GARDENER
VCE-MG volunteer opportunities are unique in that they provide opportunities to build the local community through education about environmentally sound horticulture and to improve quality of life through horticulture for special populations, such as low income, elderly, or physically challenged. VCE-MG volunteer opportunities increase individual knowledge of horticulture through activities that help the community and assist VCE in its mission to provide knowledge for the Commonwealth. Individuals joining VCE as a VCE-MG are joining a local group of volunteers that is part of a state group, which is part of a national group of distinguished volunteers recognized for their knowledge, skills, and for the significance of the work they do in improving their communities.

The next section will further explain the identity and responsibilities of the individual VCE-MG volunteering on behalf of VCE.

STEPS TO BECOMING A VCE MASTER GARDENER
There are five levels of VCE-MG status. Each status category is determined by level of training and internship (community education service) experience. The levels include: VCE-MG Trainee, VCE-MG Intern, VCE-MG, Specialized VCE-MG, and Emeritus VCE-MG.

Upon entering the VCE-MG training, the volunteer is entering into a contract. In essence, he/she agrees that in return for the training received, he/she will volunteer an equal number of hours with Extension in an approved internship experience to be completed within one year of the contract date. Failure to complete this obligation means the individual does not receive the title of VCE-MG, is not entitled to wear the VCE Master Gardener nametag, and cannot participate in VCE-MG activities. All individuals receiving VCE-MG training must be able to commit to a minimum of 100 hours within 12 months. A minimum of 50 hours will be spent in classroom instruction, and an additional 50 hours (minimum) hands-on internship will be spent on field experience in horticulture-based, education programs.

Before volunteers are accepted into the VCE-MG training program, the local coordinator or training coordinator should make sure that there are volunteer opportunities available that fit the schedules of the trainees. Some jobs require work day hours and other volunteers can...
perform tasks that can be done after-hours, such as research, writing, telephone calling, and record keeping. Specific job descriptions for volunteer internships should be available so volunteers know exactly what is expected of them and to ensure that program needs are met. Appendix B includes sample job descriptions that assist the volunteer in completing his/her obligations and in assisting VCE with identified needs.

**VCE Master Gardener Trainee**

One who is currently in classroom training to become a VCE-MG but has not yet taken, or satisfactorily passed, the final examination on course material.

**VCE Master Gardener Intern**

One who has completed the VCE-MG program classroom training requirement, achieved 70 percent or better cumulative average on the final examination, and is currently fulfilling the initial internship experience of 50 hours educational efforts/work time.

During the minimum 50-hour internship, at least 40 hours must consist of public or community educational efforts (programs or activities), and up to 10 hours may be volunteer coordination activities for the business of the VCE-MG program (such as planning and conducting next year’s VCE-MG class, being an officer of the local MG association, or editing the local VCE-MG newsletter).

To properly track all efforts of VCE-MG volunteer educators contributed their community through VCE, information will be recorded on a regular basis. These records should be submitted to the local VCE-MG coordinator for biannual entry into the state record keeping system by a designated VCE-MG volunteer. If an individual’s records are not recorded on this system, that individual is dropped from active status. This can jeopardize recognition, records, registration at the annual MG College, and subscription to the *Virginia Master Gardener Leadership Development Newsletter*. **If an individual does not volunteer, then he or she is not a VCE Master Gardener.**

**VCE Master Gardener**

One who has completed the VCE-MG training—classroom and internship—and is actively volunteering with VCE and thus, fulfilling the requirements necessary to remain active.

VCE-MGs who desire to remain active after completing their initial training and volunteer internship commitments are required to complete an annual recertification process. This process insures that VCE-MGs are trained in current, up-to-date information. Recertification consists of 28 hours annually spent in training and service, as described in the following paragraphs.

A minimum of eight (8) hours of recertification training is required annually (hours to be spent in further developing and sharpening horticultural and educational program delivery skills). This training obligation can be met through continuing education programs offered through the Virginia Master Gardener Association; lecture-style presentations at local VCE-MG monthly meetings; advanced training credits earned through participation in the annual MG College in June at Virginia Tech; completion of advanced-level VCE-MG training programs, such as Master Gardener Tree Steward; and similar educational opportunities, or college credits. Recertification training activities must be approved by the local VCE-MG coordinator. In the case that a VCE-MG participates in a VCE-MG specialization training
program, such as VCE Master Gardener Tree Steward, the education hours can be prorated over a three-year period.

Twenty (20) hours of work time/educational programming and/or volunteer coordination efforts are required annually to meet the recertification service obligation. These activities must be conducted in conjunction with the VCE agents’ program objectives. They must also be approved by the local VCE-MG coordinator and, for liability purposes, appropriate Extension personnel. VCE-MGs should continue to submit time sheets and keep track of their volunteer contributions as they did when they were interns.

When a person ceases active volunteering with VCE and/or no longer pursues continued education, he or she also relinquishes the title of VCE Master Gardener. If these requirements have not been met, the VCE-MG is considered inactive. Inactive status is temporary and is available for a one or two year period upon request of the individual and approval of the local coordinator. Coordinators may choose to review this status annually and may require additional training to reactivate an individual to VCE-MG status. The individual is subject to removal from mailing lists and is not eligible to attend advanced training programs during the inactive period.

**SPECIALIZED MASTER GARDENER**

One who has received specialized training in any of the advanced-level VCE-MG training programs and has completed the program requirements. Specialized training is available in various areas including arboriculture (VCE-MG Tree Steward) and water quality (VCE-MG Water Steward). Other project specialization areas will include composting, integrated pest management, 4-H/youth horticulture and horticulture therapy. These advanced training modules provide VCE-MG volunteer educators the opportunity to expand the influence of VCE through leadership in their communities and enables VCE-MGs to get involved in and lead programs concerning a community’s greatest assets. The advanced training has three goals:

- ♦ Provide a type of training that integrates programming and technical expertise.
- ♦ Promote cooperative community efforts.
- ♦ Enhance the community.

Training materials, upon completion, will be available for purchase from the Office of Environmental Horticulture, 407 Saunders Hall, Blacksburg, VA, 24061-0327; (540) 231-6254.

**EMERITUS MASTER GARDENER**

A dedicated VCE-MG who "retires" due to health or other reasons after 300 hours of service or as determined by the coordinator. This is a high honor status and should have limited use. This title is specifically for individuals who can no longer complete (usually for health reasons) the requirements for remaining active VCE-MGs, but who have earned continued affiliation with the program.

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**Master Gardener College**

The MG College is an annual advanced training program held the third weekend in June on the Virginia Tech campus. All active VCE-MGs who have completed initial internships are invited to participate. This conference provides VCE-MGs the chance to receive current information on program issues and horticulture training, and it encourages volunteers from across the state to share ideas and experiences.
POLICIES AND PROCEDURES

USE OF THE TITLE “VCE MASTER GARDENER”

After completion of the requirements to become a VCE-MG volunteer, the official title shall be Virginia Cooperative Extension Master Gardener (usually shortened to VCE Master Gardener). Use of this title is a privilege, and this title is to be used only by individuals trained as a VCE-MG while volunteering under the auspices of VCE. This relationship should be clearly stated in nametags, signs, etc. The VCE-MG Coordinator (volunteer or paid staff) serves as the immediate supervisor for VCE-MGs. The ultimate responsibility for VCE-MG volunteers and the ability to approve activities and projects falls to the local Extension agent.

VCE-MGs work under the guidance of VCE to provide unbiased, research-based, environmentally sound, horticulture information to the public; and any implied commercial endorsement resulting from use of the VCE-MG title is improper. Therefore, the title may not be used for commercial publicity or private business. Participating in a commercial activity, association with commercial products, or giving implied VCE endorsements to any product or place of business is a violation of VCE-MG policies. VCE-MGs may only identify themselves as such while volunteering in conjunction with official/approved VCE programs or activities, such as a plant clinic conducted at a retail store, NOT for business or personal gain.

VCE-MG training and experience may be given as qualifications when seeking employment; however once employed, credentials may not be displayed by the VCE-MG or the employer. Individuals who wish to use their horticulture training for distinction in the workplace should pursue Virginia Nursery and Landscape Association certification by exam, as the VNLA course work is very similar in nature to the VCE-MG training.

VOLUNTEER CONTRIBUTION AREAS

VCE-MG volunteer hours should be recorded in the following areas. Only hours recorded in the “Work Time/Educational Programming” section apply toward completing the internship and recertification obligations. Hours under “Contributed Time” apply toward career service totals only.

Work Time/Educational Programming

Educational Efforts
Activities or programs in which the VCE-MG educates the public. This includes presentations at demonstration sites; presentations at fairs, booths, etc.; plant clinics; and educational presentations to identified audiences, such as garden clubs, school groups, homeowner associations, church groups, etc. This also includes training of other non VCE-MG volunteers or identified groups of volunteers to assist VCE-MGs in delivering a program. Work to construct or develop a site used for educational programming, such as a water-wise landscape demonstration garden, qualifies as educational efforts if the educational program has been designed and the work is in preparation for implementation. Educational efforts include the time spent planning, implementing, and evaluating. To determine if activities are appropriate educational programming, ask the questions: “Would an Extension agent do this himself or herself?” and “Does this activity contribute to the goals and mission of the local Extension program set forth by the ELC?”
Appropriate volunteer projects are those that educate others to enhance horticulture practices on public, community, or private lands. This includes educational projects, such as conducting workshops about proper tree and shrub plantings; 4-H clubs/youth horticulture programs in public schools; and, answering consumer horticulture questions. Activities to answer questions may include telephone hot lines, plant clinics, and newspaper articles/radio and TV programs.

**Volunteer Coordination Time**
Time spent on volunteer development, training and other management roles. This may include: general VCE-MG business meetings; planning and supervising VCE-MG training classes; working on the VCE-MG group newsletter; communication efforts, such as telephone trees; attending state association meetings; and any other activities that maintain and support the effectiveness of VCE-MGs. Volunteer Coordination Time does not include management activities associated with planning, implementing or reporting on specific public educational programming that is reported under education programming time.

**Contributed Time**

**Training Time**
Time spent in personal education to increase skills and knowledge; for example, advanced training, education conferences, or other settings that qualify as recertification training.

**Noneducational Programming**
Noneducational programming includes activities such VCE-MGs’ involvement in the design, installation, upkeep, and maintenance for public or demonstration gardens without the VCE-MGs conducting educational activities (such as active demonstrations, hands-on workshops, etc.). In order to record as volunteer contributed time, the activity must be approved and documented by an Extension agent as contributing to the goals and mission of the local Extension program set forth by the ELC.

Noneducational programming also includes travel time and other non-work time necessary to do the job of volunteering.

**Working with Youth**
Any VCE-MG that works with youth, must receive special training from their local 4-H agent. This training includes orientation to the 4-H program, introduction to the “Above Suspicion” policy and explanation of the 4-H enrollment forms. It is the VCE-MGs responsibility to inform their agent of youth program activities. Volunteer time and number of youth contacts should be reported to the 4-H Agent and to the VCE-MG coordinator or record keeper. Only horticulture-related educational projects can count towards VCE-MG programming time.

**Reporting System**
VCE-MGs use time sheets to keep track of hours spent on educational efforts as a VCE-MG volunteer. (An example of a time sheet appears in Appendix C). These are turned in on a regular basis, usually every month. Most VCE-MG coordinators will appoint a VCE-MG to keep track of and tally hours. The reporting system provides the information critical for recognition and acknowledgement of individual, group and county-wide efforts of VCE-MGs and the overall VCE educational program. Each individual’s contribution is critical because it is the basis of success. Therefore, it is extremely important for each VCE-MG to report
accomplishments and hours. Reporting of VCE-MG accomplishments also justifies to funding agencies, such as grant sources and county governments, the expenditure of their money.

VCE-MGs should not be modest about their volunteer contributions. One way for VCE-MGs to share achievements is through these reports -- promote VCE-MG accomplishments and results, describe helpful resources that are being used, indicate impacts VCE-MG efforts are having in the local community, and what VCE-MGs intend to accomplish in the future. VCE-MG hours tracked on time sheets are totaled and used to provide annual recognition for VCE-MG service, including discounts for attendance at MG College at Virginia Tech.

These volunteer reports are also used to complete many types of annual reports. Extension agents report VCE-MG accomplishments on the VCE Plan of Work, primarily under Sustainable Landscape Management. These figures are then used by the state Extension Specialist in the Office of Environmental Horticulture (OEH) to quantify the efforts and accomplishments of state-wide VCE-MG participation and complete additional reports to the VCE administration, legislators, and grant funders. These reports are largely used in getting competitive grants to support the work done in OEH, such as the development of the Advanced Master Gardener — Tree Steward training manual, slide sets, and teacher’s guide. VCE/VT also uses state-wide reported information to work with local governments to increase local funding support. These time sheets and records that the VCE-MG keeps have far greater importance than most individuals realize.

Volunteer work is usually done within the geographical area served by the Extension unit office conducting the training. VCE-MGs trained in a multi-county program, however, should make arrangements with their local VCE-MG coordinators to volunteer in the communities in which the VCE-MGs reside. VCE-MGs who volunteer in counties other than those in which they trained should let their training coordinators know of their activities, but for inclusion in annual VCE reports, the volunteer activities should be reported under the county in which the activities were conducted.

**Pesticide Recommendations**

VCE-MGs must follow the VCE Pest Management Guide recommendations. Part of the training of VCE-MGs includes use of these Pest Management Guides (PMGs). The PMGs represent the most up-to-date knowledge of VCE concerning the use of chemicals and the LEGAL recommendations meeting all government agency standards for labeled use of pesticides in Virginia. Use of other pesticide recommendations is not approved. Any questions about use of chemicals in commercial operations must be referred to an Extension agent. VCE-MGs must be very careful about pesticide recommendations because the registration and use of pesticides are governed by the United States Environmental Protection Agency and the Virginia Department of Agriculture and Consumer Services. Under the amended Federal Insecticide, Fungicide, and Rodenticide Act (Federal Environmental Control Act of 1972), it is illegal to use a pesticide on a crop unless the crop is listed on the pesticide label. The given rate of application on the label may not be exceeded. Fines and other penalties vary according to the laws broken. VCE-MGs must follow the VCE Pesticide Policy, as stated in Appendix D.

**Liability Coverage**

VCE/VT extends liability coverage to representatives of the university in conducting business related to/on behalf of the university. This includes coverage of VCE-MGs volunteering on
behalf of VCE, under the Commonwealth of Virginia self-insurance program, as authorized by Section 2.1-526.8 of the Code of Virginia. This insurance program covers employees and volunteers while participating in VCE Master Gardener activities approved by Extension personnel for cases of negligence or liability only. Any medical problem, however, arising from volunteer work for VT/VCE is the individual VCE-MG's responsibility through his/her own personal health care coverage. Questions regarding VCE/VT liability coverage should be directed to the Office of Risk Management at Virginia Tech (540-231-7439).

**VCE Master Gardener Rewards**

Volunteers are not compensated financially, but the rewards are realized by the gratitude of the people served in their communities and the positive changes they can see around themselves. VCE Master Gardeners should know that their work is valued and appreciated by their fellow workers in the Extension office as well as district and state staff. Certainly, the number of citizens who come to VCE-MGs with plant problems indicates that they and their knowledge are needed and greatly appreciated. VCE-MGs should be proud of the positive impact they have on the quality of the environment. The title and status of being a VCE-MG is highly regarded. Earning the title demonstrates an individual's knowledge, skills and dedication to community service. The sense of accomplishment and pride in a job well done are assets that only VCE-MG volunteers can collect.
CREATING A LASTING IMPACT THROUGH EDUCATIONAL PROGRAMMING

VCE MASTER GARDENERS AS EDUCATORS

VCE-MG volunteer educators are trained community leaders working with people to increase knowledge and understanding of environmentally sound horticulture. Being a VCE-MG volunteer educator is making an investment in the local community and its people. VCE-MG volunteers offer services and skills without monetary compensation so that others may benefit. This volunteer service has far-reaching results, such as the improvement of community resources (like water quality), positive impacts on environmental quality through sustainable landscape management, and improved health and quality of life for individuals in the community. When VCE-MGs educate citizens of Virginia in sustainable landscape management, they empower people through improved horticulture skills and bring the benefits of horticulture to many people. In preparation for volunteering, VCE-MGs personally gain training and knowledge in horticulture and leadership skills. Volunteering develops new skills and identifies new personal strengths while bettering the community.

A successful VCE-MG conducted educational program is based on careful thought and formation of a comprehensive action plan tailored to needs of the local community. VCE-MG efforts are focused, educational programs rather than “random acts of education” that may or may not benefit the community. The local VCE-MG coordinator and program planning committee work together with appropriate VCE agents to target community needs identified by the ELC that the VCE-MGs can meet. With oversight by their Extension Agents, VCE-MG volunteers then work to meet these needs through a variety of activities that build public awareness of the importance of horticulture to people, increase interest in environmentally sound horticulture activities, and involve other community volunteers who are necessary for the ultimate success of the program. Educational programming based on identified community needs makes the VCE-MGs more effective in bringing the many benefits of environmentally sound horticulture to the community.

EDUCATIONAL PROGRAMMING

Educational programming is a complete approach to teaching people about environmentally sound horticulture and sustainable landscape management. It has three equally important stages: planning, implementing/evaluating, and reporting. Once the planning is completed, the actions are carried out and the event is evaluated to determine whether or not goals were accomplished and methods were effective for the given resources, goals, etc. Depending on the event, reports can be prepared for the particular results achieved or notes can be made for inclusion in VCE-MG reporting system. A VCE-MG counts all time involved in that process (planning, implementing/evaluating, reporting) as educational programming/work time. This means volunteers do fewer projects, but projects are conducted more thoroughly.

Planning a VCE-MG educational activity starts with identifying achievable goals or outcomes that support the overall goals of the local VCE program. Then an audience, topic, and appropriate actions are identified. Identified actions supporting educational programming
generally involve educational tools and activities. Tools aid the teaching of the identified audience (and sometimes unidentified audiences) and include signage that illustrates a point or technique, such that an individual may read and replicate in his or her own garden, and information dispersal, such as through pamphlets and brochures. Activities, such as physical demonstrations, lectures, and hands-on participation from the target audience, enhance the learning process. Success in teaching is indicated by reaching identified outcomes and can be measured in terms of increase in knowledge (pre- and post-tests), adoption of practices (initial and follow-up surveys) and changes in behavior (observations before and after).

**VCE-MGs are teachers of the community, rather than gardeners offering free horticultural services to the community.** Teaching others to garden involves more effort than doing the gardening personally, much like teaching a child to clean his or her room is often harder than actually doing it. VCE-MGs actually doing gardening work rather than teaching others how to garden are like parents still cleaning a 35-year-old child’s room. The child never learns how to do the cleaning as long as it is always done for him or her. Similarly, citizens of Virginia will be less likely to change their horticultural behaviors if they are not given opportunities to learn for themselves. To have maximum impact on water quality and other identified issues, VCE-MG efforts should focus on teaching citizens of Virginia to garden and practice horticulture in an environmentally sound way.

**EXTENSION PROGRAM AREAS**

In VCE’s efforts to provide knowledge for the Commonwealth, VCE educational programs are conducted in each of the main Extension emphasis areas including Agriculture and Natural Resources, 4-H, and Family and Consumer Science.

**AGRICULTURE AND NATURAL RESOURCES**

Horticulture, particularly environmental horticulture, falls under Agriculture and Natural Resources and is the area that VCE-MGs most frequently work with. The Sustainable Landscape Management horticulture program addresses the issue of landscaping and gardening that are:
- environmentally sound.
- economically viable.
- acceptable to members of the community.
- enhance the psychological well-being of people.

For example, proper selection, installation, and maintenance of plants are essential to economically and effectively reduce erosion, landfill overload (about 15 to 20 percent is yard waste), right-of-way maintenance, air pollution, and many other problems associated with rural and urban development. In addition, proper landscaping protects our cultural heritage and increases tourism. The program utilizes workshops, demonstration sites, newsletters, Internet information, and certification training to provide research-based information to public and private landscapers, landfill operators, school ground managers, developers, park and golf course superintendents, retail nurserymen, and garden center staff whose skills protect the environment, enhance human health, and contribute to economic stability.

**4-H PROGRAMS**

4-H is the comprehensive youth development program of VCE. Youth between the ages of 5 and 18 engage in hands-on learning experiences under the guidance of adult or teen 4-H volunteers trained by 4-H agents. 4-H programs use experiential learning opportunities to teach the latest research-based subject matter knowledge and to foster skill development in effective citizenship, leadership, and other life skills. The ten areas of 4-H curriculum focus
are: Animal Sciences; Communications and Expressive Arts; Environmental Education and Natural Resources; Jobs, Careers and Economics; Plant and Soil Sciences; Citizenship; Consumer and Family Sciences; Health, Nutrition and Wellness; Leadership and Personal Development; and Science and Technology. Youth also participate in educational experiences at six 4-H educational centers. 4-H has both a school-based delivery model and a community-based delivery model so maximum access to Virginia’s youth is provided. The specific learning experiences a 4-H member participates in are shaped locally and supported at the state and national levels. 4-H members learn how to make decisions, manage resources, work with others, and utilize effective communication skills. 4-H serves as an effective prevention educational program. Involvement in 4-H reduces the potential for dysfunctional involvement in the community by youth.

VCE-MGs use horticulture projects and horticultural activities to conduct the 4-H clubs and school programs and can address nine of the ten 4-H program areas. All VCE youth programs must be coordinated with the 4-H agent.

**FAMILY AND CONSUMER SCIENCES PROGRAMS**

*Nutrition and Wellness*

Nutrition, health, and wellness educational programming relates to food and nutrition and food safety. Heart disease, cancer, strokes, diabetes, and atherosclerosis accounted for 67% of all deaths in the Commonwealth in 1992. The cost for treatment of any one of these diet-related diseases averaged $27,000 per person, for an annual cost to the state of $883,440,000. Nutrition and wellness programs provide education so people can make informed decisions and adopt food and nutrition practices that will promote optimal growth, health, and productivity and reduce disease risks and health care costs. Audiences for these programs include school age youth, child care providers, teachers, parents, and limited resource families. Workshops, exhibits, and fact sheets are among the delivery methods used by trained staff.

VCE-MGs contribute to nutrition and wellness programs, through community or school vegetable gardens and other educational programs to teach gardening for nutrition, especially to target audiences listed above. Work with community groups or individuals to grow food for Food Banks and Homeless Shelters can contribute to the overall VCE nutrition program.

*Family and Human Development*

Families are an integral building block in the structure of the economics and social fabric of Virginia. Our families face a variety of challenges, issues, problems, and opportunities in our constantly changing world. The primary goal of this programming is to enhance the functioning of Virginia’s citizens to achieve improved levels of self-sufficiency and effectiveness in everyday living within their families and communities. The target audiences include families with children and with aging members and special needs families, such as those dealing with welfare and the court systems. Other programming provides education for providers of child care, enhancing child care in the community, and the ability of child care providers to earn income. Workshops, newsletters, and fact sheets are examples of delivery methods used. Involvement of participants in small groups through which personal, on-going attention is provided makes VCE family programs uniquely successful.

VCE-MGs can contribute to family and human development programs, by providing leadership in developing educational programs for preschools, nursing homes, and senior citizens groups or by working with the juvenile court system or by working with family, staff and clients in rehabilitation facilities.
MEETING THE GOALS OF VCE

The VCE program planning and reporting system includes long-term goals and annual program proposals. The foundation upon which program proposals are developed is strategic issues. Strategic issues are identified by specialists, agent faculty, and others through a collaborative strategic program planning process. Program proposals for client-focused programs are developed by campus-based Program Leadership Teams (PLT) after identifying foreseeable or anticipated problems appropriate for VCE programming, using information from strategic issues analyses and other pertinent information (e.g., research, successful programs, past programming experience, etc.).

Program proposals serve as a communication and planning tool for developing, delivering, and reporting VCE programs. They are used to communicate information about programs within the system, such as priority issues, planned time, measurable indicators for program impacts, and reporting expectations. They serve as a planning tool by communicating PLT support for programs, including suggested educational strategies, inservice training, etc. Program proposals are also used to communicate with external audiences, such as the state legislature and federal government, about VCE client-focused programs.

Once approved, the program proposals are distributed to all staff. All units and personnel respond (“buy in”) to the appropriate program proposals by providing a brief local situation statement, estimates of program participants, and amount of time planned on the proposal. Personal or team action plans and individual staff development plans are also prepared. The strategic issues analysis, program proposals, personal and team action plans, and staff development plans become the Plan of Work for VCE (a written list of objectives and action statements). At the end of the programming year, an annual accomplishment report is developed for each program proposal. In addition, units and staff are able to amend, or update, their plan of work annually, or as needed.

Most VCE-MG goals and interests closely compliment the work of Environmental Horticulture (EH) agents. Many EH Extension agents work towards objectives that have been listed under the subject of Sustainable Landscape Management in the formal Plan of Work. They may also work to create programs to meet objectives listed under Water Quality and Waste Management. The programming goals and objectives of the Plan of Work should be very similar in nature to goals and objectives created for VCE-MGs educational programs. The following is a summary of Plan of Work VCE goals and objectives that apply to programming conducted by VCE-MGs.

VCE PLAN OF WORK

SUSTAINABLE LANDSCAPE MANAGEMENT (SLM) -

Goals:
For individuals/businesses/agencies in the non-agricultural sector (including residences, public and private landscapes, right-of-ways, parks and golf courses, landfills, schools, developers, utilities, etc.) to acquire skill in SLM (with emphasis on IPM) that protects the environment, enhances human health, and ensures economic stability.

Programming Direction and Impact:
Objective 1: For residents, public and private landscape maintenance professionals, retail garden centers employees, state and local government employees, and professionals in impacted fields such as tourism and real estate development to increase awareness and
knowledge of sustainable landscape management for the optimum use and protection of the environment, including: management of all aspects of the residential/urban public and commercial landscape (soil, plants, insects, diseases and wildlife); and, understanding and proper use of equipment, pesticides, fertilizers, and other landscaping inputs to have the greatest value with little negative impacts. Educational programs are targeted at water quality, yard waste management, erosion control, and related issues.

Objective 2: For youth and the volunteers and professionals who work with youth: to increase awareness and understanding of the value of horticulture and landscaping to young people; to gain the knowledge and skills needed to conduct horticultural-based activities in such a fashion as to meet the goals of the individuals and professionals (i.e., SOL for teachers); and, to use horticulture as a tool to increase responsibility and leadership for youth. Note this objective should be addressed working in cooperation with the 4-H agents.

Objective 3: For residents, public and private landscape maintenance professionals, retail garden center employees, state and local government employees and agencies, and professionals in impacted fields such as tourism and real-estate development to increase awareness and understanding of the value of the landscape. For this same group to acquire knowledge and skill to insure the proper design, installation and maintenance of sustainable landscapes for economic benefit to the individual and community. This objective is directed to any horticultural activity that is focused on value and techniques within horticulture other than on environmental protection, 4-H, foods and nutrition, or human health and quality of life.

Objective 4: For individuals (homeowners, renters, residents in halfway houses and heath care facilities employees), organizations (civic, church, professional), and local government agencies to gain awareness of the benefits of home food production and to develop skill and knowledge in growing food, managing community gardens or contributing to food banks and kitchens. This programming should be conducted in cooperation with the VCE Nutrition Education and Health Promotion Program (#85901) working with the FCS agent.

Objective 5: For health care workers, horticultural industry members and residents of Virginia regardless of their income, physical or mental disabilities, age or other limiting factors: to gain the awareness of the value of the interior and exterior landscape to human health, well-being and quality of life; and, to acquire knowledge and skills that will allow them to utilize this information for personal health and a healthier work place and community. The development of horticultural therapy programs at nursing care facilities, rehabilitation hospitals and hospice all contribute to the quality of life of Virginians. Health related issues such as the use of toxic chemicals, proper protection against skin cancer, and safe use of garden equipment are included here. Work in this area should be conducted in cooperation with the VCE program area Families Across Life Cycles (#86601) and the FCS agents.

WATER QUALITY AND WASTE MANAGEMENT

Goal:
The goal of the program is to provide appropriate education and program development/implementation assistance to allow government officials and individuals to decide on appropriate levels of environmental quality and to place farmers, homeowners, businesses, elected/appointed local officials and individuals in a position to better meet federal/state/local goals for water quality and other environmental issues in the most effective and cost-efficient manner.
Programming Direction and Impact:

Objective 4: Urban/Residential Water Quality Management. For individuals/businesses in non-agricultural sector (including residential, public and private landscapes, right-of-ways, parks and golf courses, etc.) to increase awareness and understanding and acquire knowledge and skills that foster water quality protection and conservation in the Commonwealth. To increase awareness, acquire knowledge and skills, change behaviors and realize an end result change to protect water quality.

Program Areas for VCE Master Gardeners

The VCE-MGs were originally recruited to meet the community need for answering consumer horticulture questions. Today, local VCE-MGs address many other needs including water quality, recycling, and the effects of plants on human well-being and the community. In this light, the VCE-MG volunteers are clearly one of the most relevant and important groups of Virginia Cooperative Extension. Some examples of VCE-MG educational programs conducted to meet community needs include:

♦ **Answering Environmental Horticulture Questions** - VCE-MGs have done a superb job of assisting local Extension units in the dissemination of horticultural information to the gardening public by conducting plant clinics and gardening classes, answering telephone questions, and many other means of information transfer. Additional information on answering environmental horticulture questions is found in Appendix E.

♦ **Environmental Impact** - VCE-MGs have become an important link in Extension’s efforts to slow pollution of the Chesapeake Bay by non-point pollution from urban runoff. Using materials developed by the Office of Environmental Horticulture, VCE-MGs educate citizens all across Virginia on proper fertilizer and pesticide management in the home landscape.

♦ **Increasing Life Quality** - Many particularly worthwhile VCE-MG projects have been aimed at citizens who are lower income, handicapped, young, or elderly. Educational activities have included demonstrations of pruning and planting in low-income areas; working with the elderly to develop food gardens; working with residents to landscape a shelter for abused women; and delivering horticulture programs, such as "Ready, Set, Grow" to schools.

♦ **Community Landscaping** - VCE-MGs are valuable resources to Virginia communities concerned with improving the quality of life and protecting the environment through landscaping. VCE-MGs teach the community about environmentally sound horticulture practices by involving the community in planting and labeling trees, rejuvenating the landscapes of historic sites, and other community projects.

♦ **VCE-MG Volunteer Administration** - VCE-MGs have successfully acted as administrators and managers of local VCE-MGs, producing newsletters, organizing training, and even temporarily continuing Extension programming in offices without a horticulture agent.

♦ **Extension Research** - VCE-MGs have played an increasingly valuable role in Extension research efforts, working in agricultural experiment stations, at the Virginia Tech research farm and with local agents, as well as participating in surveys.

Information on acquiring resources to utilize in community education programs can be found in Appendix F.
EDUCATIONAL EFFORTS VS. FREE LABOR

Often, VCE-MGs are asked to be free laborers in horticultural activities because of their training and knowledge. These types of activities, such as maintaining a public or historic garden, designing a landscape, or leading garden tours, do not directly educate the community and are inappropriate activities for VCE-MGs. There are ways, however, to accomplish these activities through educational efforts to benefit the community. The following examples offer suggestions for transforming these activities into educational projects for teaching members of the community.

MAINTAINING A PUBLIC OR HISTORIC GARDEN
(PLANTING, WEEDING, AND WATERING)

Master Gardener Educational Efforts

♦ If the goal of the owners of the garden is to have free labor for maintenance of an authentic historic garden or an aesthetic garden, then the proper role of the VCE-MG as educator is to help establish a cadre of “weed-pulling volunteers,” such as “Friends of the Gardens,” or help the staff recruit 4-H, civic clubs, etc. and train them to do the actual garden maintenance. While a VCE-MG may choose to become a "Friend of the Garden," hours donated are not VCE-MG contributions.

♦ If VCE-MGs are given the option of planning activities to be conducted at a garden site, they should treat a public garden as an outside classroom for teaching purposes, not for gardening or beautification purposes. Appropriate audiences should be identified and events planned accordingly.

♦ Use a public garden site (such as historic gardens, demonstration gardens, etc.) to conduct public workshops to illustrate the essence and purpose of the garden, such as proper weed control techniques, how and why to mulch, proper plant selection, historical meaning and value of the garden, social values of a community garden, or environmental ethics.

♦ Use signage at the site to point out the on-going demonstration, such as an unmulched plant on the left and a mulched plant on the right. The sign or a pamphlet free for the taking should describe proper procedures for mulching, why the plants are behaving the way they are, etc.

♦ Bring groups of people, such as 4-Hers, to the garden to give a presentation on earth stewardship or water quality protection. Demonstrate gardening techniques that promote environmental awareness, and have a hands-on work session where the individuals are allowed to participate in the activities.

♦ Although some hands-on maintenance of an educational garden will be required, most of that type of effort should come in the form of educational programming where others are trained and supervised in the actual work. Public gardens should be used for teaching the community.

Non-Master Gardener Activities

♦ Gardening for the sake of gardening. If you do not include educational components with goals and results in your activities at the demonstration site, then it is simply a garden maintained by free labor and does not count as VCE-MG volunteer efforts.

DESIGNING AND INSTALLING A LANDSCAPE FOR THE TOWN SQUARE

Master Gardener Educational Efforts

♦ Involve school groups, 4-H clubs, other identified groups of people in an environmentally sound design contest, using proper design concepts as judging criteria.
Use the design process as the subject of a weekend workshop (i.e., on water-wise landscaping practices) for homeowners. Meet again to have a workshop on proper planting techniques. Participants may gain an appreciation for economics and the social value of plants to the community.

Use the garden to collect pre- and post-installation data about its impact on the community and people’s attitudes toward their community. This data can be used to educate your local public officials on the value of town landscaping.

In time, the site can be used in an integrated pest management workshop or similar educational program.

A garden may be installed as part of an effort to teach about personal impact and responsibility. It is especially critical that such a garden be constructed with, NOT FOR, the learner.

Non-Master Gardener Activities

Design and plant the bed as a group of VCE-MGs only.

Taking on projects that are tourism-based gardens or for beautification alone. If this opportunity is not being used to teach the public (including public officials), it is NOT educational programming/work time. Tourists walking by and observing the attractiveness of a container garden on Main Street is NOT educational programming (but MAY be contributed time if it meets ELC goals). In such cases, it would be better to teach an identified group, such as a civic club, high school service-learning class, etc. and have it assist in maintaining these types of gardens.

LEADING GARDEN TOURS

Master Gardener Educational Efforts

Educate the public about environmentally sound horticulture practices. For example, use a plant identification tour specifically structured to teach about right plants for right places.

Non-Master Gardener Activities

Tour or conduct tours for the sake of looking at pretty plants.

PLANT SALES

Master Gardener Administrative Efforts/Work Time

Have an identified purpose for raising the funds. If proceeds are for a specific event, such as building a compost demonstration site at which presentations will occur, then hours become administrative efforts/work time. The plant sale should also incorporate a plant clinic or some other educational component.

Non-Master Gardener Activities

If the plant sale is something the VCE-MGs do for personal enjoyment or to raise money for non-program activities (i.e., picnics or trips) with no identified purpose or outcome, then it is free labor and does not count toward VCE-MG volunteer service hours.
MASTER GARDENER HOSTED TOUR TRIPS

Master Gardener Educational Efforts
♦ May count for educational programming if the audience is other than VCE-MGs. For example, VCE-MGs take a group of homeowners to Green Spring Gardens Park in Fairfax, Virginia, to view and discuss the demonstration gardens there as a structured educational event.

Master Gardener Recertification Training
♦ When the VCE-MG is the person being educated, these hours, if approved by the local VCE-MG coordinator, can count toward recertification training requirements (minimum of 8 hours annually).
VCE-MG Volunteer Coordination and Management

VCE-MG conducted educational programs cover a wide array of audiences and subject matter. In order to reach a wide and diverse audience it is important to work as a team and have strong internal and external support. This section discusses some of the ways that VCE-MGs work as a team and how administration and management help organize efforts.

Team Building

(Part of this section evolved from "Developing Effective and Efficient Local Committees" by Delwyn A. Dyer, Professor Emeritus, and Oscar Williams, Director, Institute for Volunteer and Leadership Development, Virginia Tech).

Good leadership and structure within the VCE-MG program will increase effectiveness, ability to accomplish goals, and credibility within the local community. Effectiveness as a group depends on the ability to build strong teams that share in accomplishing the goals of the whole organization and the development of a system of transitional leadership so that no one person develops sole “ownership” of the group.

In order to be successful, a volunteer organization, such as the VCE-MG program, depends on teamwork for several reasons. First, most tasks require the expertise and energy of a group working together. No one person can do all the work alone. Second, effective team work helps build commitment and loyalty to the group. Third, being a part of a group or team fills a need for camaraderie and support, insuring that members feel needed and important to the group. Fourth, decisions made by groups tend to be more effective, well thought out, and creative than those made by one person. Fifth, there are team members to take over responsibility if one person must be out for health or other reasons. Team development is important, then, to group success and depends on the effort and commitment of each leader and team member.

A well-functioning team should possess the following qualities:

♦ A strong sense of purpose, with clear goals understood by all members.
♦ Good group decision-making ability.
♦ Mutual respect and acceptance of the contribution of each member.
♦ Good communication skills, including the ability to listen to the input of others.
♦ Clear roles. Members should understand how they fit into the group. Roles should be flexible so when the need arises, old roles can be modified to fit new situations. The roles should clearly demonstrate how they progressively lead to greater responsibility.
♦ Flexibility so that new members are welcome and established members can change roles.
WHAT IS AN EFFECTIVE TEAM?
Teams make up the backbone of a larger organization, serving as working groups to solve specific problems or implement specific projects. Such groups implement the organization’s programs; devise ways and means of carrying out business; in specific cases, establish policies and plans and execute the affairs related to their specific task; and evaluate effectiveness. A team is a device for dividing into manageable components and distributing certain responsibilities and specific work of the larger group. A team is limited by the scope of the job it has to do and its resources, that is, the finances, experiences of its membership, technical resources available, and time allotted for the completion of the task.

PURPOSES OF TEAMS
Simply stated, the general purpose of teams is to assist the parent organization by taking on responsibility for and giving specific attention to certain details, problems, or concerns facing the parent body. Specifically, their purposes vary according to the specific needs for which they were created. Examples of specific needs include consideration of budgeting problems, publicity ventures, membership campaigns, program implementation and training of future leaders. Whenever teams are appointed, their specific tasks should be clearly defined in writing.

As a local VCE-MG group develops, increasing numbers of volunteers become involved in many projects. This creates many additional management tasks, such as record keeping, recruitment, training, and other responsibilities. It is impossible for the local VCE-MG coordinator, paid or volunteer, to manage all of these responsibilities single-handedly. Volunteer involvement must be organized and responsibilities delegated in order to realize the goals of the program. The best way to do this is to form teams with clearly identified goals, objectives and tasks to handle different responsibilities. Effective teams should be the most important working force of the VCE-MGs; and they will be if team members are selected for the contributions they can make, not merely because it is their time to serve. Every member of the group should have an opportunity to serve on a team, but a member should be placed on a team in which he/she has interest or potential to make a contribution.

CREATING VCE-MG TEAMS
In the normal routine of a VCE-MG volunteers, there will be tasks and responsibilities relating to:
- educational programming.
- recruiting and training new VCE-MGs.
- publicity or media involvement.
- fund raising and soliciting contributions, both monetary and in-kind.
- completing evaluations of and reports on educational efforts.

It is most helpful to develop at least five teams to focus on the routine tasks: an Educational Program Team, a Recruitment and Training Team, a Public Relations Team, a Resource Development Team, and an Evaluation and Reporting Team. These teams will assist in delegating responsibilities related to managing VCE-MGs and will help ensure completion of projects.

As the program becomes more developed, the group may need to form other teams to meet special needs. The teams suggested here, however, are necessary to perform basic functions, as they provide a means of carrying out business in these five essential areas.
1) Educational Program Team

Determining and planning educational efforts focused on meeting the needs of individual communities will ensure the achievement of VCE goals and objectives, in keeping with the mission of VCE. Educational program team members work with the local ELC and agents to identify those educational programs that will meet the local needs. Having members of this team serve on the ELC will ensure that needs identified by VCE-MGs that can be met through their educational efforts are included in the local Plan of Work (see page 18). Initial members may be the original planning team members who initiated the local VCE-MG volunteer effort. Team composition should change to include individuals who have the ability to offer insight into educational program planning and possess the determination to ensure the success of volunteer efforts. This team regularly communicates and works with Extension personnel to ensure that the efforts of VCE-MGs coincide with the programmatic efforts of Extension agents.

This team will require sub-teams to manage specific programming areas. Five members of the Educational program team should serve as chair for sub-teams representing each of the five educational objectives in the Sustainable Landscape Management Plan of Work (see page 18) including: environmental issues, 4-H/youth, community enrichment, food and nutrition, and human health and well-being. The sub-teams will be composed of individuals representing educational activities in each of these areas. This structure increases communication among the various participants. Agents from all areas in which VCE-MGs are conducting programs should meet with this team regularly.

2) Recruitment and Training Team

Volunteers recruited from the community in which educational programs/projects are implemented will be the single-most important resource for the VCE-MG program. These community members are the source of renewed energy for VCE projects and programs and also bring with them new ideas, contacts, and resources. It is important, then, that volunteers are continually brought into the program, and once recruited, they must be given proper training to be a VCE-MG. One person alone cannot handle all of these tasks, especially as programs grow and more volunteers become involved. A Training and Recruitment Team, as a group, decides what is the best strategy for recruiting new people from the community, develops the training program, coordinates speakers, orders books, facilitates training classes, and other tasks related to recruitment and training of new VCE-MGs. A team leader, or the team as a whole, based on specific volunteer opportunities are available as determined by the VCE agents/VCE-MG coordinators and Education program team, prepares written job descriptions, such as the sample descriptions in Appendix B, before recruitment begins. This committee ensures that recruitment and training activities bring in appropriate volunteers for accomplishing the goals of the local group.

3) Public Relations Team

Putting the group’s activities in the public eye will work wonders for increasing impact of educational programs. Increased visibility will increase community involvement in the form of volunteerism, contributions, participation in activities, and increased awareness of issues. Media coverage is vital to success. A Public Relations Team focuses specifically on increasing the visibility of the accomplishments and impact of the VCE-MG program in the community conducted by VCE-MGs, as well as involving the community in educational efforts. Working with the news media, creating an advertisement campaign, and making public presentations are all part of public relations. Again, these are large tasks better undertaken by a group rather than a single person, and a Public Relations Team is ideal to handle these matters.
4) **Resource Development Team**

To actually carry out projects and programs, materials, money and sometimes extra labor will be needed. Soliciting in-kind contributions ("stuff") from local businesses is the most effective way of obtaining the things needed to carry out the functions of the group. Even after the group has received contributions, such as office supplies, free printing services, plant material and other gardening supplies from local nurseries, free use of a public meeting room, and the like, there may still be a need for actual monetary funds for other services or materials that cannot be contributed. Fund-raising activities may need to take place. A Resource Development Team must be created to take care of these needs by soliciting contributions and raising funds, both within the community and possibly from larger foundations. Members of this team should work closely with the Public Relations Team to ensure public recognition of contributors and fund raising events promotion and the Evaluation and Reporting Team to ensure that contributors are properly thanked and receive follow-up and final reports.

5) **Evaluation and Reporting Team**

One of the most demanding and essential tasks of an organization is to keep records of what activities were conducted, how effective they were, and their long-term impact. These records, which include facts and figures, surveys, and short anecdotes, are essential to keeping the group focused on its mission and insure that goals are met. Records are essential to motivate the membership as they demonstrate the progress being made toward a shared goal. The records are critical in getting continued support from the community and are of highest quality and are most complete when a team works together to develop them.

**VCE Master Gardener Support**

As discussed in the first section of this publication, there are numerous sources of support for VCE-MGs within Cooperative Extension including local Extension agents, Virginia Tech Extension Specialists, the Office of Environmental Horticulture and the State Master Gardener Coordinator. Master Gardener Associations are also an important resource and support organization.

**Master Gardener Associations**

As the number of VCE-MGs grew, many members felt the need for an organization that could provide continuing education, communication, and social interaction with other VCE-MG volunteers. In the winter of 1988, an Advisory Board consisting of VCE-MGs and Extension agents was appointed to investigate the formation of such an organization. After a year of study, the Advisory Board recommended that a state MG association be formed.

In 1990, the Virginia Master Gardener Association was incorporated. By 1993, it had achieved status as a 501(c)(3) nonprofit, tax exempt, non-stock corporation, with a mission “to foster communication, education and fellowship among those involved in the Virginia Cooperative Extension Master Gardener Program and to support and promote the Program.” Membership is open to all VCE-MGs, whether trainees, interns, active or emeritus volunteers, and to Extension employees. Annual dues are required, and a lifetime membership is available.

The state Association is governed by a board consisting of a President, Vice President, Secretary, Treasurer, immediate past President, Chairs of all standing committees, and a representative from VCE. Members of the Association within local units or groups of units that train together select a representative to the board who attends state meetings and serves as the link to local VCE-MGs by reporting activities of their unit and keeping their unit advised of activities around the state.
The Virginia Master Gardener Association (VMGA) sponsors continuing education programs for their members and other VCE-MGs during the year at various locations throughout the state and has held a state MG conference. It offers programming suggestions for the Office of Environmental Horticulture’s annual VCE-MG College and, in general, serves as an informal advisory group for the VCE-MG State Coordinator. Through its bimonthly newsletter, *VMGA Report*, information about programming and activities is shared among the many local groups. A communications network has been set up to provide time-urgent information sharing and to publicize VMGA and local association activities. The Association expands and strengthens the VCE-MG volunteer by offering assistance to VCE units with VCE-MGs when they need support in setting up local associations, fund-raising, and project development. In addition to the VMGA, many local associations have been formed with similar purposes.

For some areas, a local Association has served the dual role of providing a “dues” based organization for Master Gardeners “external” to VCE and an “internal” to VCE middle management structure for VCE-MG volunteers. While effective in creating a structure for delegating and accomplishing management related tasks, this duality of roles can lead to significant misunderstandings. To clarify these roles it is important to keep the following in mind:

♦ **The primary role of an association is to serve its members.** Appropriate activities for an association are recreational and social exchange among members; professional development by educational programs for members; and activities to make it possible for members to better reach their goals (for example grants for attending educational events or for establishing VCE-MG educational programs). Since an association’s members are its target audience, MG associations do not sponsor public education events. Public educational events are sponsored by VCE and conducted by VCE-MGs (in some cases with support from MG associations).

♦ **New VCE-MGs are trained through VCE.** Members of associations often coordinate and participate in training of new VCE-MGs but in doing so, they are serving in their role as a VCE-MG not as a member of an association.

♦ **Associations that are incorporated or so highly organized as to function as if incorporated are “external” to VCE and their activities (unless linked directly to VCE goals and approved by VCE personnel) are not covered by VCE liability.** Just as Riverbend Nursery would not be liable for issues arising from a Virginia Nurserymen and Landscape Association activity attended by their employees, VCE and Virginia Tech are not responsible for a MG association sponsored activity. Associations that are independently incorporated are legally and financially responsible for any action that they take without documented and authorized support from VCE or VT. Questions regarding VCE/VT liability coverage should be directed to the Office of Risk Management at Virginia Tech (540-231-7439).

♦ **VCE has no policy requiring all of the VCE-MGs (in a local, regional or state-wide area) to pay dues and join an association.** This is a personal choice and can not be used to influence their VCE-MG volunteer involvement.

MG associations can provide organizational benefits and motivation for VCE-MGs that are valuable in the successful and rewarding continuation of local and state-wide VCE-MG activities. Local agents may select to use a non-incorporated or incorporated “association” model to serve as middle managers for VCE-MG volunteers; however, it is critical that differentiation be made between the roles of the association and the roles of VCE and the VCE-MG teams.
SUMMARY

The Guide to VCE Master Gardener Educational Programming provides an overview of the VCE Master Gardener effort. Additional information is available on the VCE Intranet at http://www.ext.vt.edu/vce/specialty/envirohort/mastergard/master.html or contact your local VCE-MG Coordinator or the State Master Gardener Coordinator with questions.

VCE Master Gardener provides volunteers with an opportunity to perform a valuable service to the community and environment and to receive instruction, training and experience in horticulture. The partnership between VCE agents and the VCE Master Gardeners continues to grow and bloom through increased participation and expansion of programming. The challenge of educating the public about sustainable landscape management is tremendous but accomplishable through dedicated work and the VCE-agent and VCE-MG team spirit.

STUDY QUESTIONS FOR THE VCE MG HANDBOOK

Study Questions
1. VCE-MGs are NOT:
   a) partners with VCE; b) non-paid staff of VCE; c) free labor; d) trained educators

2. To maintain active status, VCE-MGs must complete _________ hours of training and _________ hours of volunteer service each year.

3. Appropriate VCE-MG service activities include:
   a) weeding flower beds at the library; b) planting a container garden at the mayor’s office;
   c) conducting field trips for VCE-MGs; d) designing a rose garden by conducting a workshop
   for the community about landscape design

4. VCE educational programming is influenced by:
   a) the VCE plan of work; b) Extension Leadership Councils; c) community needs;
   d) Extension specialists and agents; e) all of the above

5. VCE-MGs should give pesticide recommendations:
   a) based on the VCE Pest Management Guide; b) from the internet; c) for commercial use;
   d) from personal experience

Answers: 1-c; 2-8 and 20; 3-d; 4-e; 5-a
Appendix A:

VCE Administration Information

Virginia’s Six Districts

Central District

Mike Geisinger, Director
304 N. Church Street, Appomattox, VA 24522-0150
(counties of Amelia, Amherst, Appomattox, Bedford, Brunswick, Buckingham, Campbell,
Charlotte, Cumberland, Danville, Franklin, Halifax, Henry, Lunenburg, Lynchburg,
Mecklenburg, Nottoway, Pittsylvania, Prince Edward)

Northeast District

Betty M. Parker, Director
11 South 12th St., Richmond, VA 23219
(counties of Charles City, Chesterfield, Essex, Gloucester, Goochland, Hampton,
Hanover, Henrico, James City, King and Queen, King William, Lancaster, Matthews,
Middlesex, New Kent, Newport News, Northumberland, Powhatan, Richmond, Westmoreland,
York)

Northern District

Beverly Butterfield, Director,
32 Waterloo Street, Suite 20, PO Box 701, Warrenton, VA  22186
(counties of Albemarle, Alexandria, Arlington, Caroline, Culpeper, Fairfax, Fauquier,
Fluvanna, Greene, King George, Loudoun, Louisa, Madison, Nelson, Orange, Prince William,
Rappahannock, Spotsylvania, Stafford)

Northwest District

Jesse Judy, Director
1230 E. Main Street, Luray, VA  22835
(counties of Alleghany, Augusta, Bath, Botetourt, Clarke, Craig, Frederick, Highland,
Page, Roanoke, Roanoke City, Rockbridge, Rockingham, Shenandoah, Warren)

Southeast District

Fred Custis, Director
113 Owens Hall, Virginia State University, PO Box 9400, Petersburg, VA 23806
(counties of Accomack, Chesapeake, Dinwiddie, Greensville, Isle of Wight, Norfolk,
Northampton, Petersburg, Prince George, Suffolk, Surry, Sussex, Southampton, Virginia
Beach)

Southwest District

Joe Hunnings, Director
265 W. Main Street, Abingdon, VA 24210-2715
(counties of Bland, Buchanan, Carroll, Dickenson, Floyd, Giles, Grayson, Lee, Montgomery,

Note: The most current directory information can be located on the WWW at http://www.ext.vt.edu/vce/directories/
Adapted from Publication #490-147, October 2000
APPENDIX B:
SAMPLE JOB DESCRIPTIONS

JOB TITLE: VOLUNTEER VCE MASTER GARDENER COORDINATOR

Location: At home and/or extension office

Duties: Set the positive standard for expectation and achievement among VCE-MG volunteers. Meet regularly with VCE agents and the basic organizational teams (Educational Program Team(s), Recruitment and Training Team, Public Relations Team, Resource Development Team, and Evaluation and Reporting Team) to delegate responsibilities related to managing a VCE-MG program and ensure that VCE-MG activities are achieved and meet local needs and keep with the mission and goals of VCE. Attend periodic coordinator training opportunities available through the Office of Environmental Horticulture, Virginia Tech. Train incoming volunteer VCE-MG coordinator.

Reporting time and duration: The coordinator is responsible for regularly communicating with the local Extension office to ensure Extension awareness and approval of VCE-MG activities. The coordinator will oversee the completion of two reports annually (April and October) that will be submitted on the state record-keeping program to document local VCE-MG accomplishments and impacts. Oversee report of VCE-MG activities, accomplishments, and impacts to the Extension office for inclusion in the annual Extension report. Maintains records documenting VCE agents approval of all educational programming activities.

Expected results: The coordinator is expected to facilitate the local VCE-MGs so programs meet the needs of the local community in keeping with the mission and goals of VCE and to act as a liaison between the Office of Environmental Horticulture at VT and the local office.


JOB TITLE: PLANT CLINIC STAFF

Location: Libraries, Recreation centers, Shopping centers, Extension offices, County/State fair, Farmers’ markets, other appropriate locations

Duties: VCE-MGs will be available at prearranged sites and times to examine and diagnose plant specimens and problems brought in by citizens and make recommendations in compliance with Extension recommendations and approved practices.

♦ Form a plant clinic group/committee, and elect a chairman who will coordinate activities.
♦ Work with local VCE-MG coordinator or Extension agent(s) to establish regular sites for plant clinics.
♦ Establish the frequency of plant clinics and the number of hours VCE-MGs are to spend at the clinic.
♦ Determine suitability of fees for clinics conducted at business sites (i.e., for every VCE-MG hour spent in plant clinics at Lowe’s, $7 is donated to the local VCE-MG fund, and in turn, funds are used to support a local school gardening grant program).
♦ Work with Extension staff, local VCE-MG coordinator, and VCE-MG graphic artist to create plant clinic promotional materials.
♦ Keep records of all clients seen, problems diagnosed, and recommendations given.
♦ Forward to Extension agent(s) any materials that VCE-MGs cannot diagnose.
♦ Assist with setup and take-down as well as with staffing plant clinics.

Reporting time and duration: VCE MGs will conduct plant clinics at specified frequencies, at
designated locations and report time spent on clinic work to the Evaluation and Reporting Team.

**Expected results:** Residents will receive help with horticultural problems and volunteers will increase their knowledge of insect pests, diseases, cultural problems and diagnostic techniques.

**Resources:** The Virginia Master Gardener Handbook, VCE Web pages (http://www.ext.vt.edu), current Pest Management Guides (PMGs) available through the VCE Distribution Center, 112 Landsdowne Street, Blacksburg, VA, 24061-0512.

**JOB TITLE: COMPOST TEAM MEMBER**

**Location:** Compost site, Extension office

**Duties:** Work with the compost team coordinator to provide the public with educational lectures and demonstrations about general compost practices at the compost site and other locations, as needed. Provide materials as requested by the Extension office for demonstration purposes. Assist the compost team coordinator in recruiting and scheduling community volunteers to turn, water, and add materials to compost bins, as needed. Participate in team meetings for planning, evaluating, and reporting. Assist the coordinator in training incoming compost team members.

**Reporting time and duration:** Provide monthly progress reports to compost team coordinator. Compost site to be maintained from early spring to late fall with support labor from community ‘trainees’ such as school groups. VCE-MG composting team should meet regularly as necessary throughout the year for planning, reporting, and evaluating.

**Expected results:** The VCE-MG compost team members should use the compost site as a teaching facility and ensure that community volunteers are active in the maintenance of the site. The site should be maintained and labeled in a manner that will provide the public with “how to” knowledge of composting by viewing the bins outside of regularly scheduled educational programs and demonstrations at the site.


**JOB TITLE: VCE-MG LEADER FOR 4-H GARDEN PROJECT**

**Location:** Extension office, Classroom, Gardens

**Duties:** Work as volunteer for the 4-H Garden Project. Participate in training for 4-H garden volunteers. Work with past VCE-MGs to provide training for the new volunteers, if needed. Coordinate activities with the 4-H Extension agent. Contact appropriate 4-H staff for resolutions of problems, if any. Procure all necessary materials for the 4-H garden project portion involved with horticulture. Report activities, accomplishments, and impacts to the local VCE-MG coordinator and the 4-H Extension agent for inclusion in the annual Extension report.

**Reporting time and duration:** Report the number of enrollees to the 4-H Extension agent or other identified coordinator on a weekly basis and volunteer hours, impacts and results to the Evaluation and Reporting Team while the project is ongoing. Projects may vary in duration.

**Expected results:** Involve children in horticulture activities to enable children to learn and experience the joy of growing plants. Help children apply that knowledge to improve their homes and communities.

**Resources:** Virginia Master Gardener Handbook; 4-H materials from the 4-H office and Extension office; 4-H guidance sheet from the Extension office.

**OTHER JOB TITLES**

Other job titles may include: Community Landscape Project Coordinator, County Fair Project Coordinator, Neighborhood Plant Expert Disabled Citizens Program (DCP) Coordinator, Horticultural News Writer, Demonstration Garden Coordinator, Community Garden Coordinator, and Compost Demonstration Coordinator.
APPENDIX C: REPORTING SYSTEM

Keeping track of VCE-MGs, projects and hours is very important for communication and for accountability. This information can be used to justify programming and aid in grant applications. The VCE State Master Gardener Reporting System was developed to standardize reporting information and help keep up with volunteers and volunteer service. The following is a list of data the Record System asks you to report. First each project or activity must be entered and then the subsequent volunteer hours. The activity information can be obtained from the project chair and each VCE-MG can keep track of personal volunteer hours using time sheets (an example of a time sheet is on the next page). A record keeper will be needed to enter the information into the State Reporting System. Remember to keep track of all the details not only to insure recognition of accomplishments but also to serve as a resource for future projects. This information serves to meet the criteria of the VT Risk Management Office. Consult the State Record Keeping Handbook for more information.

PROJECT/ACTIVITY INFORMATION:
- Project name
- Project chair/co-chair
- # of VCE-MGs required
- Volunteer hours required
- Location
- Event date
- Duration
- Responsible agent
- Name and address of persons/organizations requesting VCE-MG services
- If minors are involved and proper training has been completed
- Clientele Category (residential homeowner, disabled, elderly, governmental professionals, green industry, low income & disadvantaged, organized groups & clubs, teachers and educators, youth/4-H, youth at risk)
- Education Program Area (SLM-Educational Programming, Administrative Time, Contributed Time)
- VCE SLM Objective (1-protecting the environment by educating about SLM, 2-using horticulture & landscape to change attitudes & behavior of youth, 3-marketing the value of the landscape, 4-home food production & human nutrition, 5-using horticulture to improve human health, well-being & quality of life)
- Plan to implement
- Plan to bring to a close
- Plan to evaluate & report
- Notes

VOLUNTEER INFORMATION:
- Name
- Name of activity
- Date of activity
- Hours
- # of contacts and type of contact
- # of minority contacts
- # of youth contacts
- # of extended learners
- Notes
**SAMPLE VCE MASTER GARDENER TIME SHEET**  
*Submit completed form to VCE-MG Record Keeper*

VCE-MG Name: ___________________________________________

<table>
<thead>
<tr>
<th>Activity Date</th>
<th>Activity Name</th>
<th>Total Hours</th>
<th>Travel (in hrs.)</th>
<th># Total Contacts</th>
<th>Type of Contact*</th>
<th># Youth Contacts</th>
<th># of Extended Learners**</th>
<th>Notes</th>
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*Contact Codes: 1 = face-to-face contacts, 2 = contacts by email, 3 = contacts by telephone, 4 = contacts by newsletters, 5 = contacts by non-electronic correspondence*

**Adults that have participated in 4 or more hours of instruction or youth that have participated in 6 or more hours of instruction.*
APPENDIX D:

VCE PESTICIDE POLICY STATEMENT, 
#93-001

EXTENSION PESTICIDE POLICY INVOLVING VCE-MGs

Extension programs involving the use of pesticides or advising the public on the use of pesticides carry high liability for Virginia Cooperative Extension, Virginia Tech, Virginia State, local government, and the Commonwealth. Pesticide policy statements have been written for the purpose of protecting these organizations as well as the faculty, staff, and volunteers working under the umbrella of VCE. This statement has been written with the intent of preventing pesticide misuse or misinformation and protecting the public from potential harm associated with these mistakes.

VCE-MGs are defined as volunteer Extension representatives who work with environmental horticulture and urban agricultural programs in the local Extension units. VCE-MGs come under this policy because they often provide recommendations for the use of chemical controls for pests of plants. They might also be involved in pest control in local demonstration plots and exhibits. This policy statement addresses volunteers who provide information involving chemical pest control recommendations and those who use pesticides.

INSURANCE COVERAGE FOR VCE-MG ACTIVITIES

VCE-MGs are covered under the Commonwealth of Virginia self-insurance program as authorized by Section 2.1-526.8 of the Code of Virginia which is based on a comprehensive general liability manuscript policy form. This insurance program covers employees and volunteers while participating as a VCE Master Gardener.

VCE-MGs are not covered under this insurance for pesticide use or pest control recommendations conducted outside of VCE programs. For example, if VCE-MGs misuse pesticides as part of their personal activities, they are not covered under the liability insurance of the Commonwealth. If VCE-MGs are involved in a business that provides similar services, such as pest control or lawn care, they are expected to cover this form of liability under their business liability insurance.

VCE-MGS PROVIDING CHEMICAL PEST CONTROL RECOMMENDATIONS

VCE-MGs providing chemical pest control recommendations must adhere to the printed recommendations provided by the pest control specialists at Virginia Tech and published as the Pest Management Guide for Home Grounds and Animals (PMG). This guide is printed every year with updates provided by the authors between printings as necessary. VCE-MGs are not permitted to provide recommendations to other groups, such as agricultural producers, nor are they permitted to use non-homeowner PMGs for recommendations to any group.

Although there are many other sources of pesticide recommendations available, many are proprietary in nature (i.e., company literature, the Ortho Problem Solver™, etc.) and should not be used as a replacement for the PMG. They can be used as a reference, but any official recommendation to the public must come from the most recently published version of the PMG.

VCE-MGs must be instructed by VCE personnel or other VCE-MG leaders on how to use the PMG. Its use should not involve changing or adding to the chemical pest control recommendations in any way. Also, VCE-MGs must be provided with training on pesticide safety and pest control as outlined in the VCE Master Gardener Handbook.
Many VCE-MGs have decided to become certified as private applicators. This certificate is legal for personal use, but according to federal and state pesticide law is not appropriate for use by VCE-MGs in their roles as volunteer staff of VCE. This does not imply that Extension agents cannot assist their VCE Master Gardeners in becoming certified as private applicators. However, the private applicator certificate is established only for those using restricted-use pesticides and in the business of raising agricultural commodities. It is presently the position of the Virginia Department of Agriculture and Consumer Services that VCE-MGs are not required to be certified under their present capacity as volunteers. VCE concurs with this position.

**VCE-MGs Applying Pesticides as Part of Their Volunteer Activities**

It is possible that some VCE-MGs are involved in the application of pesticides in demonstration plots or exhibits as part of their volunteer activities. In these cases, they are required to be certified as either registered technicians or commercial pesticide applicators as required by the Virginia Pesticide Control Act. They must be certified in a category of applicators associated with their activities [most likely Ornamental and Turf Pest Control (Category 3), Ornamental Pest Control (Category 3A), Turf Pest Control (Category 3B) and or Agricultural Pest Control-Plant (Category 1A)]. New applicators are required to start as registered technicians until they accumulate one year in service. The registered technician requirement involves a minimum of 40 hours of on-the-job training before they can take the registered technician exam. After this experience, they can remain registered technicians, or they may take the category exams to become a commercial applicator. Only persons with one year’s experience as a registered technician or equivalent experience or training can become a commercial applicator. After receiving their certificates, all certified applicators must recertify every two years by attending approved training courses.

This process of certification can be very burdensome for volunteers. The process is not as simple as it was several years ago. Most Extension agents and VCE-MGs will find that it is not worth the trouble associated with these requirements to get involved in the application of pesticides as a VCE-MG activity. It is best that these activities be left to VCE technicians, agents, and other VCE employees who are already certified to apply pesticides under the laws of the Commonwealth. If a VCE-MG is not a certified pesticide applicator, then he or she should not apply pesticides in the role of a VCE-MG.

**Further Clarification**

Since this policy is a complicated one, there may be the need for further clarification. For more information, VCE-MGs should contact their local VCE-MG coordinators or Environmental Horticulture Extension agents. If further clarification is needed, agents should contact one of the two persons listed below:

**Master Gardener Training:**
Dr. Diane Relf, Extension Specialist  
Office of Environmental Horticulture  
Virginia Tech  
Blacksburg, VA 24061-0327  
(540) 231-6254  
pdrelf@vt.edu

**Pesticide Education Program:**
Dr. Michael J. Weaver, Extension Coordinator  
Virginia Tech Pesticide Programs  
139 Smyth Hall - 0409  
Blacksburg, VA 24061  
(540) 231-6543  
mweaver@vt.edu
Appendix E: Communication: Keys to Successful Implementation

Diagnosing Plant Problems

As a VCE-MG, you will work with many types of people, coming to you with questions and problems concerning horticulture. In order to fully understand the client’s problem and suggest a solution to that problem, you must be able to communicate effectively. This can be a challenge, since the object of discussion, the client’s garden or plant, is often not present, and you must deduce the problem from a verbal description of the trouble.

Effective communication is not just a matter of speaking clearly and listening closely. As you listen to a client’s description of his ailing indoor plant, you are trying to understand a situation that you have not experienced. It is very easy to leave out details when we describe something that is familiar. The client may not know that the color of the leaf edges or the proximity of heating ducts to the plant are important clues to the plant’s problem. You can improve communication by asking questions.

By thinking of all the possible symptoms and conditions that might match up with the described ailing plant, you can pose questions that should yield enough information to find the solution. It is a good idea to summarize your findings and present them to the client. Don’t be afraid to say something like, “I am going to describe, in my own words, the condition of your plant as I understand it. Stop me if I have it wrong.” After all, we are not talking books — we’re all merely human, and what we mean and what we say are not always the same. Being human, we have ways of interpreting meaning from voice changes, gestures, facial expressions, and general body language, as well as words. The important point is to express our own understanding so the client can compare it with his knowledge of the situation.

There is a stumbling block to communication other than incomplete information from the client — the VCE-MG’s horticultural expertise. This can be a problem in at least two ways. The VCE-MG can know so much about a topic that he or she does not bother to listen to everything the client has to say. Or, the problem may be identified and possible solutions discovered, but the VCE-MG cannot describe necessary procedures in terms the client can understand. Germination, propagation, and fertilization are all very nice terms, but they are quite useless if they draw blank looks. There is nothing wrong with basic, down-to-earth terms like grow, dig, and water — go ahead and use them.

Remember, no one knows everything. As a VCE-MG, you know a great deal about horticulture, but remember that one of the most important things you know is how to find answers. In your work at plant clinics or at the Extension office phone, you will have access to excellent resource material. If your client’s problem is too complex to readily solve with your knowledge and the aid of the resource material, take the person’s name, address, and phone number, then find the time to answer the question thoroughly or see that it is answered by the Extension agent or a specialist.

Using the Telephone

When working with clients by telephone, communication can be even more difficult because there are no visual clues to meaning. Listen carefully, and ask many questions. Be sure to familiarize yourself with the office procedures for telephone use. Your local VCE-MG coordinator or someone on the staff will provide you with such information as what to say when answering the phone and how to log calls.
Every time you make or receive a telephone call as a VCE-MG, you are representing VCE. The impression you create can be a lasting one and may determine whether or not the person you are speaking with will continue to turn to Extension for assistance.

When the telephone rings, answer promptly — quick service helps build a reputation of efficiency. Identify yourself — it helps personalize the call and gets the conversation off to a good start. Be friendly by being a good listener so the caller will not have to repeat what is said. Be considerate by not carrying on two conversations at once. Callers should not be made to feel they are competing with people in the office for your attention.

Sound as good as you are. Show that you are wide awake and ready to help the person on the line. Use simple, straightforward language. Avoid technical terms and slang. Speak directly into the telephone, pronouncing words clearly. Talk at a moderate rate and volume, but vary the tone of your voice.

When you must leave the line to obtain information for the caller, it is courteous to ask, “Will you wait? Or shall I call you back?” If the person chooses to stay on the line, use the hold button (if your telephone has one) or lay the receiver down gently. Should it take longer than you expected to gather material, return to the line every 30 seconds or so to assure the caller you’re working on the request. When you have the information, thank the caller for waiting. Transfer a call only when necessary, but if you must, explain why you’re connecting the caller with someone else. Be sure the caller wants to be transferred. If he/she does not, offer to have someone call back.

When answering for someone else, be tactful. Comments such as “He hasn’t come in yet” or “She’s just stepped out for coffee” can give the wrong impression. It’s better to say “Mr. Jones is away from his desk right now. May I ask him to call you?” When you take a message, be sure to write down the name, time, date, and telephone number and basic concerns or question. Don’t hesitate to ask the individual to spell his name or repeat his number. Put your name on the message in case there are additional questions before the call is returned.

You will occasionally speak with a caller who may be having a bad day and takes it out on you. Remain calm, and don’t take the comments personally. As long as you are trying, in a courteous manner, to help a caller, you are doing your job. Retain your sense of humor and give the caller your sincere attention.

Because people are calling you for information, you need to know how to utilize VCE publications on horticulture. Printed material is recognized as a means of saving the time of county staff members and specialists. However, publications should not be treated as free products. Find out what the office’s policy is on publications and how conservative you need to be in their distribution. Ordering and distribution of Extension publications are now computerized, and supplies can be obtained quickly.

**Writing Tips**

VCE-MGs have plenty of opportunity to use writing skills. Some VCE-MGs help produce publications for local gardening needs, others prepare scripts for slide sets, and some write newsletters and columns for the local newspaper. Timely horticultural information is available to you for news releases and columns. This information is stored on Virginia Tech’s WWW site (http://www.ext.vt.edu) and is easily accessed with the Extension office’s computer terminal. The section on using the computer explains how to obtain this material.

Organization and simplicity help you achieve a well-written product. A great deal of time and crumpled paper can be saved by starting with a clearly defined purpose and outline. An easy way to understand the purpose of your writing is to create the title. A good title tells, in a few words, what the subject of the work is. “All about Grapes” indicates a great deal of material is going to be covered: history, varieties, culture, and uses of the fruit. If you are only writing about the culture or the pruning, say so. Do not mislead the audience. Once the title is written, you know how you should limit the topic and what should be covered. The roughest outline is better than none, and its bare-bones structure makes it easy to see the logic of the
work you are about to create. It is much easier to repair holes in the logic at the outline stage than later, when hard-won paragraphs or even pages may have to be removed. It’s a lot like pruning — easier done when there are no leaves on the tree. Make an outline after the topic has been captured in a title.

After the title and outline are complete, the writing can proceed. Address each topic on the outline, and soon the job will be finished. Remember to include a topic sentence for each paragraph. Explain each topic on the outline and back up what you say with information from professionals. If you really get stuck, examine the idea you are trying to express. Perhaps there is nothing more to say about it than the sentence that is already there. Perhaps it is irrelevant or misplaced in the outline. If all else fails, put the work aside and take a break. A change of scenery and a little time away from the words can do wonders for clearing the head. When you come back to the work, the problem may be perfectly clear and the solution obvious.

Simplicity is essential to clear writing. Even though vague phrases invade business letters, newswriting, television, and radio, there is no need to promote the trend. For instance, “We would like for you to stop by our office” can be replaced with “Please come into our office.” The same message is conveyed with greater clarity using half as many words. If you find yourself struggling over a choice of words, try telling someone what you want to say. As you say it, listen to yourself because you are probably using the words you need to write the same explanation. Avoid slang, jargon, and flowery or obscure vocabulary. You won’t go wrong with the simplest English words used correctly. The goal of good writing is to communicate, not to confuse.

An interesting sentence carries a strong verb and few adjectives. If you must shorten a piece of writing, you can sacrifice adjectives and gain simplicity along with space. Articles (a, an, the) are often unnecessary. Some languages do not have articles at all; we can probably do without some of ours.

Perhaps the most common misunderstanding about writing is that it will be easy. While it is true that some people are more adept at writing than others, those who write well usually admit that it takes work. Just as good gardeners must get their hands dirty, good writers spend hours rewriting and use dictionaries and grammar books constantly. They are not looking up words you’ve never heard of either. They are checking the actual meaning of “cultivate” or whether or not there is a hyphen in “damping-off.” Make sure there is a good dictionary in the office and use it. Computer programs also offer numerous helpful tools including dictionaries, but do not rely on spell check to find all mistakes.

Sometimes new publications need to be produced or existing ones adapted for local conditions. If the agent you are working with decides you can develop new materials for distribution, check office files for old publications and/or write the appropriate specialist. Some already available materials may only need slight modification. Remember that proper letterheads and indicia are necessary on all materials sent out via “franking” privileges. After the publication is complete, send copies to appropriate specialists at the Horticulture Department at VPI & SU and VSU so they can be shared with other units.

When producing new materials from old, be certain not to infringe upon a copyright. An increasing number of Extension materials are copyrighted and may not be used for even Extension purposes without permission. If you want to use copyrighted material or even parts of that material (this includes art work) written permission must be obtained from the publisher and often from the author or artist as well.

Public Presentations

Because Extension provides information and educates the community, you will have plenty of opportunity to appear before the public as a VCE-MG, if you so desire. Not only do VCE-MGs meet the public at plant clinics, but many VCE-MGs are so knowledgeable about a specific horticultural interest that they are also invited to give talks to clubs and groups. This is a wonderful way to help Extension, as agents are often in demand for such talks. Agents and VCE-MGs are also called upon to provide workshops, demonstrations, and tours.
Most public presentations have four components: title, introduction, body, and summary. The title should be short, descriptive, and interest-catching, but most of all, it should tell what the subject is. The introduction tells the audience who you are and elaborates on the goal/content of the talk. This part of the presentation is often the key to success or failure as it sets the tone for the remainder of the program and should "hook" the interest of the audience. The body of the presentation contains the substance and should satisfy the curiosity that brought the audience to the presentation. Use research-supported information, and cite references whenever possible. The summary states the major points of the presentation in a logical sequence without details. This part should be short and clear. Following a presentation, be prepared to answer questions. Repeat questions for the audience when they are difficult to hear or understand, then answer them.

Public presentations take preparation to be successful. Don’t be fooled by a casual delivery. Many people who appear to be relaxed and able to effortlessly speak before groups have actually spent many hours achieving this effect by preparing and practicing. To plan a presentation consider:

♦ who the audience is
♦ their general knowledge of the subject
♦ how technical the subject is
♦ timeliness
♦ appropriateness
♦ purpose
♦ materials
♦ length of presentation

After collecting materials, studying, and reviewing notes, REHEARSE. Observe these points carefully during rehearsal:

♦ Ensure that all charts, graphs, and posters are easy to see and read
♦ Ensure that the audience can hear you from anywhere in the room
♦ Arrange the materials used in the demonstration so that they are accessible and easy to reach without fumbling and delay
♦ Do not make unnecessary apologies. Avoid saying “This is the first time I’ve done this,” or “I’m not used to speaking before groups.”
♦ Do the best job you can. The audience doesn’t expect you to be perfect, and you are probably much better than you think you are.
♦ If you are giving a demonstration with another person, are the delivery and action coordinated, or does one team member do so much that the other’s participation seems unnecessary?

DEVELOPING AN EXHIBIT

If you are preparing an exhibit for public presentation here are some basic concepts to keep in mind when planning and setting it up:

♦ Choose one idea that can be explained in a simple, catchy statement. Use few printed words.
♦ Have a single center of interest to which the eye is drawn.
♦ Develop the story completely using as few items as possible. Clutter is not good for an exhibit.
♦ Create a design that is orderly, interesting, and attractive.
♦ Attract attention with movement, color, light, sound, or a clever title and attractive design, but not with all of these.
♦ Make sure that charts, posters, and other visuals are attractive, neat, clean, and easy to read.
♦ Judge exhibit by asking if it attracts attention, arouses interest, conveys a message, and is well constructed for a neat and orderly appearance.
♦ Select people to tend exhibits who are well informed, can meet the public easily, and create a favorable impression.
Advertising public presentations is very important. Too often, well-prepared programs fail to reach a large audience due to lack of adequate advertising. Word of mouth is not sufficient. Public events can be announced in newsletters, newspaper feature articles or regular columns, paid advertisements, radio or television public service announcements, and on posters displayed in appropriate locations. Sometimes it is helpful to find a local sponsor, such as a shopping center, a bank, or the chamber of commerce, to assist in financing and advertising an event. Be certain that all arrangements with sponsors are clearly defined and responsibilities are agreed upon ahead of time. When advertising outdoor events, such as garden tours or community garden walk-throughs, where no indoor facilities are available, include an alternative time and date in case of bad weather.

Preregistration can serve as an indicator of expected attendance. Some agents report increased response for workshops that require prepayment of minimal fees to cover costs of materials. Participants appear to be more motivated and interested after making a financial commitment. Talks to pre-defined groups (neighborhood associations, civic groups, etc.) that recruit participants are often a successful way to reach a large audience.

Slides are available for use in public presentations through the slide loan library (see Appendix F for a complete listing and instructions). The Virginia Gardener program offers slide programs on various horticultural topics. Slides can be ordered via computer by sending an e-mail message to tvag@vt.edu, specifying which sets you need, the Extension office address to which they should be sent, and a date by which they are needed. Please allow a MINIMUM of 10 to 14 working days for delivery. All slide sets must be returned to the Office of Environmental Horticulture.

Be sure to view the slides before the talk so you can be familiar with the equipment and to check for upside-down and reversed slides. Familiarize yourself with the script before the presentation. Reading the script to the audience yields a monotonous delivery that can be very dull. Answer some questions as they arise, but avoid straying far from the topic.

If no slide sets are available for your use and there is adequate time for the project, you may want to produce a slide set. Begin with the same principles basic to good writing and speaking: clarify the subject, and identify the audience. Also, videotapes are now available for many topics, as well. A complete listing is in Appendix F. To order videotapes, follow the same instructions as for ordering slide sets.

DEVELOPING A SLIDE SET

It is best to plan the show and write the script before taking pictures. Illustrations and photographs should relate directly to the script. Decide what should be illustrated, and prepare a list of objects and scenes to be photographed. Plan to shoot more pictures than you need, and be ready to shoot retakes. Professional photographers often fill the wastebasket with rejects before finding the masterpiece we see published. Avoid complicated slides that show too much. When presenting a slide program avoid phrases, such as “This is a slide of . . .” “Here we see . . .” “Now we’re looking at . . .” “Next we have . . .” “This picture you’re watching. . . .”. Instead, talk about what is in the picture. Do not leave a scene on the screen too long, but never for less than five seconds. Slides shown longer than one minute tend to warp. Each time the topic changes in the script, the new subject should be identified immediately. Do not let the audience sit and wonder why they are suddenly looking at a wheelbarrow when just a second ago you were discussing beans. Do not lead up to the point, begin with the point, then explain it. Do not ask the viewer to recall a prior slide. If you want the audience to see the same slide twice, at different times in the program, provide two slides.

Professional quality slide presentations can also be developed on computer using Microsoft Powerpoint. Powerpoint presentations can then be turned into slides or be viewed by audiences using a LCD projector. Check with your local Extension office for availability of this equipment.
**Radio and Television**

Extension agents and VCE-MGs have been presenting educational radio and television programs for many years. If you have interest or experience in this area, you might want to volunteer to do a program or to work on the production of a program. Before producing a radio or television program, remember that while you will reach a large audience with one presentation, you will also increase demand for information from the Extension office as new people become aware of its existence.

First, let’s look at radio program production. Before approaching a radio station with your ideas, consider the identity of the audience you want to reach. What is their age, sex, and marital status? Are they renters or homeowners? What time of day are they likely to listen to the radio for information? Radio stations know who their listeners are and what they like. Find the best station for your information by matching your audience with the radio station they are most likely to hear.

Maximum impact can be obtained by a different program each day in the same time slot. People can then habitually tune in to find out what gardening tips you are offering. Plan a message approximately 30 seconds to 3 minutes in length. Longer messages cause listeners to lose interest.

Make a list of proposed topics and review with local Extension agent to identify questions and concerns that might result. When doing a radio program as a VCE-MG, utilize educational subject matter content, not opinion or editorial comments.

After identifying the audience and preparing the program, make arrangements to meet with the program director at the station you have chosen. Take one or two sample programs with you. Some stations prefer to use their own personnel to prerecord messages from a script you have prepared. Others choose to have you record the message using their facilities. Beware of the live call-in or talk show format. These can lead to drawn out and uninteresting rambling sessions and can put the person with the answers on the spot if the question is unclear or controversial. Plan to record one or two weeks worth of programs at each visit to the studio.

Whatever the format, the message should be clear and concise.

- Use common English and simple sentence structure.
- Keep stories or examples to a minimum, using them only to emphasize or clarify a point.
- Short (30 seconds to 3 minutes) time slots should address only one topic.
- Radio presentations are usually one-way conversations and are most effective when delivered in a somewhat conversational manner. Ad-libbing from a carefully prepared set of notes comes across better than reading from a script.
- Speak clearly, emphasizing important points. Avoid talking fast. Even in a short message, main points and especially control recommendations, need to be repeated or summarized at the end.
- Provide a means for obtaining additional information. This may increase the office workload, but it also increases the audience you are reaching. However, it is not a good idea to offer specific publications on the radio. The demand may exceed the supply and the station is often picked up in other counties or states.

The Virginia Gardener radio program consists of five radio spots per month. Each is three minutes long and features Diane Relf, Extension Specialist, discussing a timely horticultural topic. These spots can be used to supplement agent or VCE-MG broadcasts, particularly in areas serving multiple stations. Distribution of the radio program is handled through the Extension Information and Media office at Virginia Tech (Media Office, 101 Media Bldg., VA Tech, Blacksburg, VA 24061-0133).

Television broadcasts need to be well prepared in advance, as do radio programs. However, the added visual dimension of the medium must be taken into consideration. Be certain the material you are presenting is best for television, i.e., it can be made visually...
informative or entertaining. Demonstrations are good for television. Television is good when visual examples are useful: healthy versus diseased plants, characteristic markings on insects, variety of color or petal shape in flowers. Find out ahead of time if the station can and will use your slides, films, or video tapes. Before you get to the studio:

- Outline the material in a script. It does not have to be a word for word account, but should be in logical order and contain all the points you want to make. Discuss script with local Extension agent.
- Approach script writing as a story telling experience. Tell an interesting and informative story.
- As always, use simple English words correctly. Avoid slang and jargon.
- Scripts should be like public presentations made in person, with a title, introduction, body, and summary.
- Use only the visuals that help tell the story, and eliminate the others.
- Use 35 mm slides for visuals, not snapshots.
- Evaluate art work and visual props. You should be able to determine the main topic from 6 feet away. Use photographs at least 8 by 10 inches in size when possible.
- Avoid detail in graphs and charts.
- Mark on the script where slides/graphics should appear; be ready to make changes for the director.
- Leave sufficient time to have slides and other graphics processed.
- Prepare parts of the demonstration ahead of time if necessary.
- Obtain necessary approval and clearances for use of films and slides.
- Remember that color contrast may not be clear on black and white television sets. Use light and dark shades for good contrast.
- Rehearse in front of a mirror: check timing, eliminate any bad habits (headbobbing, frowning, fidgeting).
- Watch out for bad verbal habits (using too many ahs, ums, or oks), and eliminate them.

A relaxed appearance is best, so wear appropriate but comfortable clothing. A brand-new outfit is not the best idea; you may find yourself uncomfortable and begin to adjust your clothing or look unhappy. Avoid white, plaids, bright colors, shiny fabrics, and bold patterns. Noisy or shiny jewelry can distract viewers from the material you are presenting. A fresh hairstyle or cut can look unnatural. Ask the television station personnel for additional tips on dress and makeup. Don’t feel embarrassed about this admitted concern for your appearance. Television is a visual medium, and the way you look is an important part of a successful production.

When you get to the studio, go over the script with the director. Decide on cues and positions and make a final check to be certain your slides and graphics are in order. A quick run-through will reveal any upside-down or backward images.

During the filming, speak in a natural tone. Relax. Imagine you are talking to a person just a few feet away. Maintain eye contact with the camera, unless advised otherwise. If you make an error, correct it naturally and without fuss. Just as in live presentations, don’t apologize. Tell the viewers of other ways to obtain information on your subject. Most of all, enjoy the experience.

The Virginia Gardener television series contains 36 sequential spots pertaining to vegetable gardening. Each spot is 90 seconds in length and emphasizes intensive home food production methods utilizing minimum chemical techniques. Television segments featuring Diane Relf cover the entire growing season, starting with planning in late winter and running through fall cleanup in October. These tapes can be used to supplement short programs by agents and VCE-MGs and are available through the Office of Environmental Horticulture at
Using the Computer

Computers are essential for educational communication in today’s society. Computers are important tools to answer questions and find information. If you would like to use the computer to do volunteer work and have or would like to develop computer skills, the Extension office is equipped with the hardware, software, and materials you need to do the job. Every unit office in Virginia has a computer with access to information on the World Wide Web (WWW) pages of the Internet. The Internet has a wealth of consumer/environmental horticulture information. VCE maintains a web page (http://www.ext.vt.edu) to assist VCE-MGs in answering horticulture questions which includes almost all Extension publications. This material is easily accessed and can be printed for local use. Articles from The Virginia Gardener Newsletter are also compiled on the Extension website. These short hints on timely gardening activities are useful for calendars, radio spots, and newsletters. Please see Appendix F for a complete listing of Extension web-based resources. The WWW also provides access to information from all of the country and the world. Remember, when using other resources, that you need to follow all VCE guidelines and recommendations when working with clientele.

In addition to being a source of information, computers can be used to produce high quality educational materials (newsletters, web pages, brochures), interact with and respond to the public (email, listservs), and maintain records. The VCE-MG State Record Keeping System, located at http://doriant.ext.vt.edu/mg is an Internet-based program that allows for easy maintenance of records and facilitates communication of achievements at the state level.
APPENDIX F:
RESOURCE LIST

VIRGINIA COOPERATIVE EXTENSION PUBLICATIONS
(All publications with a 426- prefix are available on the VCE Web Pages; http://www.ext.vt.edu, except for those denoted with a *. Search by publication number for easiest access.)

HORTICULTURE
FRUITS, VEGETABLES, AND HERBS
426-312 Planning the Garden
426-313 Soil Preparation
426-315 Garden Equipment
426-316 Seed for the Garden
426-322 Irrigating the Home Garden
426-323 Fertilizing the Garden
426-325 Composting
426-326 Mulches for the Home Garden
426-331 Vegetable Planting Guide & Recommended Planting Dates
426-334 Fall Vegetable Gardening
426-335 Intensive Gardening Methods
426-336 Container Gardening
426-366 Minimum Chemical Gardening
426-381 Season Extenders
426-401 Asparagus
426-402 Beans
426-403 Cole Crops or Brassicas
426-405 Sweet Corn
426-406 Cucumbers, Melons, and Squash
426-408 Leafy Green Vegetables
426-411 Onions, Garlic, and Shallots
426-413 Potatoes, Peppers, and Eggplants
426-418 Tomatoes
426-420 Herbs
426-422 Root Crops
426-480 Vegetables Recommended for Virginia
426-840 Small Fruit in the Home Garden
426-841 Tree Fruits in the Home Garden

426-609 Selecting Landscape Plants - Ground Covers
426-610 Selecting Landscape Plants - Shade Trees
426-611 Selecting Landscape Plants - Flowering Trees
426-617 Planting on your Septic Drain Field

MISCELLANEOUS
426-659 Groundwater Quality and the Use of Lawn and Garden Chemicals by Homeowners
426-601 The Art of Bonsai
426-612 *The VA Gardener Easy Reference to Sustainable Landscape Management and Water Quality Protection
426-613 The Virginia Gardener Year Round Guide to Nutrient Management
426-615 The Virginia Gardener Year Round Guide to Pesticide Management
426-616 *Guide to Water-Wise Landscaping

VIRGINIA GARDENER BROCHURES
426-701 Planting Shrubs
426-702 Planting Trees
426-703 Making Compost from Yard Waste
426-704 Using Compost in Your Landscape
426-705 Storing Pesticides Safely
426-706 Choosing Pesticides Wisely
426-707 Understanding Pesticide Labels
426-708 Integrated Pest Management for Vegetable Gardens
426-709 Pruning Deciduous Trees and Shrubs
426-710 Applying Pesticides Safely
426-711 Building Healthy Soil
426-712 Conserving Energy with Landscaping
426-713 Creating a Water-wise Landscape
426-714 Diagnosing Plant Problems
426-715 Fertilizing Trees and Shrubs
426-716 Landscaping for Less in the Landfill
426-717 Maintaining Lawns
426-718 Establishing Lawns
426-719 Selecting Turfgrass
426-720 Fertilizing Lawns
426-721 The Value of Landscaping
426-722 Reducing Erosion and Runoff
426-723 Home Landscape Practices to Protect Water Quality
426-724 Mulching for a Healthy Landscape
ADDITIONAL PUBLICATIONS

ENTOMOLOGY
444-020 The Gypsy Moth
444-021 Recognition of Life History and Habits - Gypsy Moth
444-022 The Homeowner and Gypsy Moth: Guidelines for Control
444-024 Gypsy Moth: A Major Pest of Trees
444-201 Resources for a Sustainable Agriculture
444-371 Boxelder Bugs
444-410 Head and Body Lice
444-411 Powderpost Beetles and Old House Borer
444-412 Indian Meal Moth
444-413 Yellow Jackets in the Home
444-423 Millipedes
444-425 Carpenter Ants
444-426 Crickets in the Home
444-431 Wood-Infesting Beetles in the Home
444-432 Pests of Stored Food in the Home
444-433 Termites in the Home
444-437 Selecting a Pest Control Operator
444-438 Cluster Flies
444-440 Spiders in the Home
444-471 Insect and Mite Pests of Lawns and Turfgrass
444-566 Insect and Mite Pests of Apple and Peach in Virginia
444-567 Major Insect and Mite Pests of Grapes in Virginia
444-615 Snails and Slugs
444-682 Stored Grain Insect Control
444-689 Ants in the Home
444-690 Wasps and Hornets
444-700 Sustainable Agricultural Systems
444-734 4-H Entomology - Leader Guide
444-765 Biological Control of Thistles
444-766 Sod Webworms
444-767 Fleas in the Home
444-768 Ticks in Virginia
444-800 Biology of Thistle Weevils
444-810 Poisonous Spiders
444-811 Cigarette Beetle
444-904 A Field Key to Common Caterpillars Found Attacking Corn in VA

PLANT PATHOLOGY
450-061 Slime Mold
450-085 Rose Black Spot
450-087 Gladiolus Corm Rot
450-088 Fire Blight of Ornamentals
450-091 Hemlock Twig Rust
450-100 Fire or Botrytis Blight of Tulip
450-118 Juniper Twig Blight
450-119 Azalea Leaf and Flower Gall
450-120 Peony Botrytis Blight
450-171 Disease Resistant Home Vegetables
450-184 Tomato Disease - Early Blight
450-232 Grape Diseases and Control in Virginia
450-374 Apple Diseases in Virginia
450-568 Diagnosis of Air Pollution Injury to Plants

SOIL SCIENCE
452-005 Fertilizer Facts
452-125 Soil Sample Information Sheet - Lawns, Gardens, Fruits, Etc...
452-222 Introduction to 4-H Soil Judging in Virginia
452-223 Intermediate 4-H Soil Judging in Virginia
452-224 Intermediate 4-H Soil Judging Scorecard
452-225 Senior 4-H Soil Judging and Evaluation Scorecard
452-253 Instructions for Soil Sample Information Sheet
452-254 Soil Testing and Plant Analysis Lab
452-260 Instructions for Use of Computerized Soil Test Program
452-405 Use and Application of Lime for Acid Soils
452-490 Soil Acidity
452-504 Soil - Virginia’s Basic Natural Resource

CHEMICAL, DRUG, AND PESTICIDE UNIT
456-035 Poisons Kill
456-036 What Poisons Do You Have and Where Are They?
456-103 Virginia’s Poison Control Centers
456-105 Danger in Trademarks and Names
456-111 Pests, Pesticides and You
456-115 Pesticides - What Are They?
456-133 Aerosols - Bombs or Blessings?
456-138 Chemicals and Cancer Statistics

ORNAMENTALS AND TURF
430-008 Turfgrass Selection for Virginia Lawns
430-009 Lawn Establishment in Virginia
430-010 How to Buy Lawn Seed
430-011 Lawn Fertilization in Virginia
430-017 Calibrating Your Lawn Spreader
430-018 Fertilizing Landscape Trees and Shrubs
430-295 Guidelines for Planting Landscape Trees
430-296 Landscape Plants
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<td>Stop Topping Trees!!</td>
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<td>430-597</td>
<td>Shade, Flowering, and Evergreen Trees for Virginia</td>
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<td>Calibration of Applicators Suitable for Treating Small Areas</td>
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<td>Weed Control in the Vegetable Garden</td>
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<td>420-007</td>
<td>Firewood Cutting and Landowner Liability</td>
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<td>420-011</td>
<td>Pond Construction: Some Practical Considerations</td>
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<td>Solar Heated Firewood Dryer</td>
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<td>420-023</td>
<td>Wildlife Damage Control in VA - Controlling Rodents in Homes</td>
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<td>Selling Your Timber? A Checklist for the Private Landowner</td>
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<td>The Landowner, Log Rules and Timber</td>
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<td>420-096</td>
<td>Virginia’s Valuable Fisheries and Wildlife Resources</td>
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<td>420-103</td>
<td>4-H Forestry Program B - Forests - Member Manual</td>
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<td>4-H Forestry Program B - Forests - Leader Manual</td>
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<td>A Landowner’s Guide to Wildlife Abundance through Forestry</td>
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<td>How a Tree Grows</td>
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<td>420-187</td>
<td>Forests and Water</td>
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<td>420-188</td>
<td>Forests and Wildlife</td>
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<td>420-189</td>
<td>Enemies of the Forests</td>
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<td>420-191</td>
<td>Making Paper from Trees</td>
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<td>420-192</td>
<td>Forests and the Natural Water Cycle</td>
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<td>420-193</td>
<td>State Trees</td>
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<td>420-195</td>
<td>What We Get from Trees</td>
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<td>420-202</td>
<td>Leaves and Fruit of the Virginia Forest Trees</td>
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<tr>
<td>420-284</td>
<td>Creative Playgrounds on a Shoestring</td>
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<td>420-298</td>
<td>Virginia Trees Checklist of More Common Species</td>
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<td>420-400</td>
<td>Tree Identification Contest 1</td>
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<tr>
<td>420-401</td>
<td>Tree Identification Contest 2</td>
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<tr>
<td>420-404</td>
<td>Forest Management: Aerial Photography for Virginia Landowners</td>
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<tr>
<td>420-406</td>
<td>Hardwood Forest Management: Improving Your Woodlot Through Firewood Harvesting</td>
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<tr>
<td>420-407</td>
<td>Reforestation: Guidelines for Planting Trees</td>
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<tr>
<td>420-511</td>
<td>Forests and the Environment</td>
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<tr>
<td>420-560</td>
<td>VPI &amp; SU Log Scale Stick</td>
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<tr>
<td>420-564</td>
<td>What to Look for in Growing Trees</td>
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<td>420-565</td>
<td>How Trees Get Their Names</td>
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<tr>
<td>420-602</td>
<td>Collections and Maintenance of Fishing Bait</td>
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<tr>
<td>420-702</td>
<td>Archery in Virginia - 4-H</td>
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<td>420-802</td>
<td>Management of Wood Ducks on Private Lands &amp; Waters</td>
</tr>
<tr>
<td>420-844</td>
<td>Common Water Plants in Virginia</td>
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</tbody>
</table>
**HORTICULTURE SLIDE SETS**

This is an updated list of slide sets available on loan and a reminder on requesting slides for loan for use in programs. The Media Center does NOT have the horticulture slides and videos, they MUST be obtained through the Office of Environmental Horticulture at Virginia Tech.

To request for loan, send an e-mail message to tvag@vt.edu. Be sure to state the titles of the slides you want to borrow and the date you plan to use them. Borrowing items is done on a first-come, first-served basis.

Send request THREE WEEKS PRIOR to usage date to allow for processing because items are sent through the Extension Distribution Center, and they must allow 7 to 10 working days for UPS shipping.

Slides MUST be returned to the Office of Environmental Horticulture, 407 Saunders Hall, Blacksburg, VA 24061-0327.

These slides have been prepared by agents and VCE-MGs in lectures and workshops over the last 15 years. Although the subject matter is accurate, some slide content may be showing age.

(A * denotes those slide sets recommended for Water Quality Programs.)
(( ) is the number of slides in the set)

## LANDSCAPING, ORNAMENTALS, AND TURF

- Biological Control of Insect and Mite Pests of Woody Landscape Plants (56)
- Broadleaf Evergreens (Ohio State) (35)
- Broadleaved Evergreens (Longwood) (49)
- *Calibrating your Lawn Spreader (40)
- Construction of a Dry Wall (20)
- Deciduous Flowering Shrubs (Longwood) (60)
- Deciduous Shade Trees (Ohio State) (50)
- Deciduous Shrubs (Ohio State) (64)
- Deciduous Trees (Longwood Garden) (60)
- Getting to Know Urban Soils (40)
- Groundcover Plants (Longwood) (70)
- Ground Covers in the Landscape (40)
- Home Turf Establishment (50)
- Home Turf Maintenance (50)
- Landscaping for High Use Areas (40)
- *Landscape Tree and Shrub Fertilization (43)
- Landscaping with Trees (40)
- Needleleaf Evergreens (Ohio State) (34)
- *Proper Mgmt. of Fertilizers on Home Lawns (40)
- Shrubs For A Shady Location (20)
- Small Flowering Trees (Longwood Gardens) (60)
- Transplanting Techniques for Comm. Trees (40)
- *Water Quality and Landscaping (48)
- Winterizing your Trees and Shrubs (40)

## ANNUALS, PERENNIALS, AND BULBS

- All-America Selection Winning Flowers, 1977 - 2001
- Annual Flowers (40)
- Annuals for Cutting and Drying (40)
- Annuals for Edging (40)
- Annuals for Shady Locations (28)
- Annuals for Sunny Locations (80)
- Annuals for Colorful Foliage (32)
- Flower Beds and Borders (40)
- Introduction to Perennials (20)
- Perennials Adapted to a Dry Location (30)
- Perennials Adapted to a Moist Location (30)
- Perennials for a Sunny Location (65)
- Perennials for Continuous Bloom (40)
- Perennials for Cut Flowers (29)
- Perennials for Dried Flower Arranging (19)
- Perennials for Groundcovers (27)
- Perennials that Will Tolerate Partial Shade (39)
- Perennials Grown for Their Foliage (19)
- Perennial Plants for Rock Gardens (25)
- Perennials Suitable for Naturalizing (38)
- Williamsburg Holiday Door Arrangements (20)

## FRUITS, VEGETABLES, AND HERBS

- Fall and Winter Garden Care (40)
- Fighting Drought in the Home Garden (40)
- Gardening in Raised Beds (40)
- Gardening in a Small Space (60)
- Herbs for the Home Garden (40)
- *Minimum Chemical Vegetable Gardening (62)
- Proper Management of Fertilizers in Home Vegetable Gardens (40)
- Starting your Own Vegetable Seed (80)
- Tree Fruit in the Home Garden (38)
- Unusual Vegetables for the Home Garden (40)
- Vegetable Gardening for the Beginner (60)
- Vegetable Varieties for Home Gardeners (40)

## INSECTS, DISEASES, AND WEEDS

- Concepts of Ornamental Disease Control (80)
- Home Vegetable Diseases (40)
- Weed Control in the Home Garden (20)
- Insects of the Home Garden (37)
4-H YOUTH
4-H Chrysanthemum Project (23)
4-H Garden Ecology Project (40)
4-H Kitchen Garden Project (33)
4-H Motivational Slide Set (118 with Audio)
4-H Vegetable Garden Project (48)
4-H Planting Ornamental Trees and Shrubs Project (60)

MISCELLANEOUS
*Applying Pesticides Safely for the Environment (47)
*Backyard Composting (56)
Careers in Horticulture (60 with audio)
Container Gardening: Construction and Planting (40)
Container Gardening: Principles and Practices (40)
Grafting (20)
Plant Propagation (20)
Plants Changing Man’s Environment (40)
Pruning - Principles and Practices (60)
*Reading and Understanding the Pesticide Label for the Lawn and Garden (40)
Starting Early Plants (20)

HORTICULTURE VIDEOS

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Videos MUST be returned to the Office of Environmental Horticulture, 407 Saunders Hall, Blacksburg, VA 24061-0327.

These videos have been prepared by agents and VCE-MGs in lectures and workshops in past years. Although the subject matter is accurate, some content may be showing age. They are useful for VCE-MG trainees to make-up missed classes.

BOTANY

BASIC BOTANY
One program, two tapes; Total time: 140 minutes
Abstract: Video covers the basic physiological processes and structural components of plants and applies these fundamental concepts to home horticultural practices. This two-part video provides a good basic survey of botany.

DISEASES

DISEASES OF THE HOME LANDSCAPE AND WOODY ORNAMENTALS
Time: approx. 60 minutes
Lecturer: Mary Ann Hansen, Lab Specialist, Plant Disease Clinic, Virginia Polytechnic Institute and State University. (Education: BS Ohio State, 1979; MS Univ. of Wisc., 1984)
Abstract: This video introduces the common diseases of woody ornamental shrubs. Disease symptoms and signs are discussed, and numerous fungal and bacterial diseases of ornamentals are pictured. Both preventative and eradicatory measures for these diseases are outlined. Several samples of diseased plants are diagnosed.

DISEASES OF THE HOME VEGETABLE GARDEN
Time: approx. 60 minutes
Lecturer: Mary Ann Hansen, Lab Specialist, Plant Disease Clinic, Virginia Polytechnic Institute and State University. (Education: BS Ohio State, 1979; MS Univ. of Wisc., 1984)
Abstract: This video discusses the organisms and environmental conditions that cause plant disease. The signs and symptoms of various plant disorders are thoroughly illustrated with slides. Methods of disease prevention, control, and cure are described.

ENTOMOLOGY

INTRODUCTION TO ENTOMOLOGY (Basic Insect ID)
Time: 60 minutes
Lecturer: Eric Day, Manager, Insect ID Lab, Virginia Polytechnic Institute and State University (Education: BS Wilmington College, 1983; MS Univ. of Illinois, 1986)
Abstract: This video provides a close look at insects and their identification. Details of the life cycles of common insects and their effect on the control of insects are outlined. Damage by various insects is described. The video ends with instructions for the submission of an insect for identification to the entomology lab at Virginia Tech.
INSECTS IN THE HOME LANDSCAPE
Time: 60 minutes
Lecturer: Dr. John A. Weidhaas, Jr., Associate Professor of Entomology, Virginia Polytechnic Institute and State University, 1967. (Education: BS Mass., 1949; MS Mass., 1952; PhD Mass., 1959)
Abstract: This video gives an overview of the types of insect pests that can infest woody shrubs and trees. Aphids, mites, defoliating insects, wood boring insects, and scale insects are pictured along with the damage these insects cause. Pesticides to use in controlling specific insects are discussed.

INSECTS IN THE VEGETABLE GARDEN AND BENEFICIAL INSECTS
(This videotape contains 2 segments.)
Insects in the Veg. Garden Time: approx. 50 minutes Lecturer: Dr. James E. Roberts, Associate Professor of Entomology, Virginia Polytechnic Institute and State University, 1969. (Education: BS Arkansas, 1954; MS Arkansas, 1955; PhD Kansas State, 1961) Abstract: This video discusses the major insect pests of home vegetable crops. Many slides illustrate these pests and help the amateur to identify them in the home garden. Several pesticides are suggested for control of these pests.
Beneficial Insects Time: approx. 20 minutes Lecturer: Dr. John Luna, Assistant Professor of Entomology, Virginia Polytechnic Institute and State University, 1986. (Education: BS Oregon, 1977; MS Fla., 1979; PhD VPI & SU, 1986) Abstract: The risks of pesticide use are outlined and the benefits of Integrated Pest Management described in this video. Biological control emphasizing augmentation of existing natural predators and parasites is encouraged.

FERTILIZER & PESTICIDE
APPLYING PESTICIDES SAFELY FOR THE ENVIRONMENT (Pest Police) Total time: 9 minutes
Abstract: Video deals with safe application of pesticides on home landscapes to preserve water quality and prevent accidents. Entertaining, yet informative.

READING AND UNDERSTANDING THE PESTICIDE LABEL FOR THE LAWN AND GARDEN (Pesticide Labels) Total time: 12 minutes
Abstract: Video shows the viewer how to use the material on the label to safely and effectively apply pesticides.

PROPER MANAGEMENT OF FERTILIZERS ON HOME LAWNS AND VEGETABLE GARDENS
(This videotape contains 2 segments)
Fertilizing Home Lawns Total time: 7 minutes Abstract: Video shows how the consumer can effectively apply fertilizers at a safe rate on home lawns, ensuring good plant growth while preserving water quality. Entertaining, yet informative.
Fertilizing Home Vegetable Gardens Total time: 7 minutes Abstract: Video shows how the consumer can effectively apply fertilizers to home vegetable gardens at a safe rate ensuring good plant growth while preserving water quality.

FRUIT
TREE FRUIT PRODUCTION IN THE HOME GARDEN
Total time: 76 minutes

SMALL FRUIT PRODUCTION IN THE HOME GARDEN
Total time: 95 minutes
Lecturer: Dr. Jerry M. Williams, Associate Professor of Horticulture, Virginia Polytechnic Institute and State University, 1982. (Education: BS Morgan State, 1965; MS Howard, 1971; PhD Maryland, 1978) Abstract: Variety selection, planting, and culture of major small fruit crops are covered crops. Discussed are strawberries, blueberries, grapes, and brambles.

LANDSCAPE
HOME LANDSCAPE DESIGN
Total time: 80 minutes
Lecturer: Robert F. McDuffie, Associate Professor of Horticulture, Virginia Polytechnic Institute and State University. (Education: BMP East Carolina State, 1975; MLA North Carolina State, 1978) Abstract: This video discusses and illustrates the design of practical, beautiful, and easily maintained home landscapes. A landscaping plan that encompasses various functional, as well as aesthetic, uses of plants is outlined from start to finish. Several guidelines are offered for low-maintenance home landscapes.
**LAWN**

**HOME LAWN ESTABLISHMENT AND MAINTENANCE**  
Total time: 112 minutes  
**Lecturer:** Dr. John R. Hall, III, Extension Specialist Turfgrass, Virginia Polytechnic Institute and State University.  
(Education: BS & MS Illinois, 1965; PhD Ohio State, 1971)  
**Abstract:** This tape covers the basic principles of home lawn establishment and maintenance, including information on variety selection.

**PLANT MATERIALS**

**HERBACEOUS PLANTS**  
Total time: 120 minutes  
**Lecturer:** Dr. Robert E. Lyons, Associate Professor of Horticulture, Virginia Polytechnic Institute and State University, 1981. (Education: BA Rutgers, 1976; MS & PhD Minnesota, 1981)  
**Abstract:** The topic of this video is the use of herbaceous plants in the landscape. The characteristics of annual vs. biennial and perennial plants are compared. Many common selections are illustrated and discussed. Bulbs and lilies are handled in detail.

**HOUSE PLANTS (Interior Plants)**  
Total time: 55 minutes  
**Lecturer:** Susan Chambers (Education: BS Horticulture VPI & SU, 1985)  
**Abstract:** This video presents the most commonly used plants for home and commercial interiors and gives suggested uses. Basic cultural practices are discussed, and a demonstration of planting a dish garden is included. A demonstration on transplanting a rootbound plant and discussion of soil and containers would be useful as an accompaniment to this tape.

**WOODY ORNAMENTALS**  
Total time: 68 minutes  
**Lecturer:** Dr. Bonnie Lee Appleton, Extension Specialist Nursery Crops, Hampton Roads Agricultural Experiment Station. (Education: BS & MS Delaware, 1975; PhD Ok. State, 1983)  
**Abstract:** This videotape introduces the four major categories of landscape plants (trees, shrubs, vines, and ground covers) and emphasizes the major species for Virginia landscapes. It covers examining the environmental conditions for plant selection and matching the plant to the environment. Proper planting techniques for bareroot, container grown, and balled-and-burlap stock are covered.

**PROPAGATION**

**ASEXUAL PROPAGATION**  
Total time: 54 minutes  
**Lecturer:** Dr. Diane Relf, Extension Specialist Consumer Horticulture, Virginia Polytechnic Institute and State University, 1976. (Education: BS Texas Tech, 1967; MS & PhD Univ. of Maryland, 1976)  
**Abstract:** Video introduces the use of asexual means to propagate a variety of plants. Methods discussed and demonstrated include cuttings, layering, and division. Grafting and tissue culture are briefly mentioned.

**SEXUAL PLANT PROPAGATION**  
Total time: 60 minutes  
**Lecturer:** Dr. Diane Relf, Extension Specialist Consumer Horticulture, Virginia Polytechnic Institute and State University, 1976. (Education: BS Texas Tech, 1967; MS & PhD Univ. of Maryland, 1976)  
**Abstract:** Video covers basic principles of growing plants from seed, starting with factors affecting germination. Includes demonstration of starting the seed, care and transplanting of the new seedling, and information on setting the transplants in the garden. Also discusses method for starting seed in the garden and ways to enhance germination.

**SOIL**

**UNDERSTANDING RESIDENTIAL SOILS**  
One program, two tapes; Total time: 120 minutes  
**Lecturer:** Dr. Thomas W. Simpson, Extension Specialist in Soils, Virginia Polytechnic Institute and State University, 1980. (Education: BS VPI & SU, 1971; MS & PhD Penn State, 1978)  
**Abstract:** Video covers the basics of soil and its management, with emphasis on the urban setting. Chemical and physical properties of soil are discussed, as well as liming, organic amendments, fertilizers, and plant nutrients. The how’s and why’s of soil testing are included.
PRUNING

PRUNING SERIES (one tape with 5 segments)
Total time: 54 minutes
A videotape with five segments was developed and produced in the field to illustrate the basic principles of pruning. Following are descriptions of each segment:

1. INTRODUCTION TO PRUNING Total time: 9 minutes
   Resource Person: Dr. Diane Relf, Extension Specialist Consumer Horticulture, Virginia Polytechnic Institute and State University. (Education: BS Texas Tech, 1967; MS & PhD Univ. of Maryland, 1976)
   Abstract: Offers a basic understanding of pruning: reasons, timing techniques, and tool selection.

2. PRUNING SHADE TREES Total time: 14 minutes
   Abstract: Shade trees require little pruning if established and maintained correctly. Basic tools and techniques for proper maintenance are discussed.

3. PRUNING SHRUBS Total time: 10 minutes
   Resource Person: Dr. Diane Relf, Extension Specialist, Consumer Horticulture, Virginia Polytechnic Institute and State University. (Education: BS Texas Tech, 1967; MS & PhD Univ. of Maryland, 1976)
   Abstract: Many shrubs require annual pruning to maintain optimum vigor and flower production. Techniques and timing are important for the different types of shrubs and are discussed in this video tape.

4. PRUNING FRUIT TREES Total time: 13 minutes
   Abstract: Fruit trees require an on-going program of pruning with the first few years of the tree's life being the most critical. Developing a strong framework and maintaining the health and vigor of a tree are discussed.

5. PRUNING SMALL FRUIT Total time: 8 minutes
   Resource Person: Dr. Jerry M. Williams, Associate Professor of Horticulture, Virginia Polytechnic Institute and State University, 1982. (Education: BS Morgan State, 1965; MS Howard, 1971; PhD Maryland, 1978)
   Abstract: This video contains a short overview of the techniques used in pruning grapevines, blueberry bushes, and brambles. Training systems for the major, woody, small fruit crops (grapes, blueberries, brambles) are emphasized.

VEGETABLE

There are two videotapes to cover the subject of home vegetable gardening. The first, Vegetable Production, was originally a series used throughout the growing season on commercial and cable television across the state. This series has been revised and edited for use in training Master Gardeners as well as for re-release for telecasting. The second tape, Vegetable Crops, was shot in the studio using a lecture and slide format to discuss crop selection.

VEGETABLE PRODUCTION (The Virginia Gardener on Video)
The Virginia Gardener (8 parts, 40 minutes)
Lecturer: Dr. Diane Relf, Extension Specialist Consumer Horticulture, Virginia Polytechnic Institute and State University, 1976. (Education: BS Texas Tech, 1967; MS & PhD Univ. of Maryland, 1976)
Abstract: This series of eight parts (each 7 to 10 minutes in length) covers the production of a home vegetable garden from initial planning and seed ordering in the winter through fall cleanup. Shot in the raised bed garden of Dr. Relf, production practices for high yield per square foot with the minimum use of chemicals is emphasized.

SELECTING VEGETABLE CROPS
Total time: 60 minutes
Lecturer: Dr. Diane Relf, Extension Specialist Consumer Horticulture, Virginia Polytechnic Institute and State University, 1976. (Education: BS Texas Tech, 1967; MS & PhD Univ. of Maryland, 1976)
Abstract: A lecture/slide format has been used to cover the key considerations in selecting vegetable crops for the home gardens of Virginia. Forty-six crops are covered by this presentation.
THE VCE-MG EXHIBIT AND BANNER

The exhibit consists of a 4’x 6’ three-panel felt-covered display unit with photographs and captions of VCE-MG activities and services. The banner is a 6’x6’ white vinyl sign bearing the VCE MG logo. The exhibit and banner are perfect for a plant clinic, a fair booth, or any other event where Master Gardeners need to display information about themselves and VCE.

These items are available to be loaned to any VCE unit on a first come, first served basis. Contact the Extension Distribution Center at (540)231-6192 in order to reserve the exhibit and/or banner. Exact dates of use will need to be given in order for the exhibit and/or banner to be sent and picked up on the appropriate dates.
INTERNET SITES

http://www.ext.vt.edu/
Virginia Cooperative Extension

http://www.ento.vt.edu/Facilities/OnCampus/IDInfo.html
Insect Identification Lab

http://www.hort.vt.edu
Virginia Tech Horticulture Department

http://www.hcs.ohio-state.edu/hcs/hcs.html
Ohio State WebGarden and Gardening database

http://aggie-horticulture.tamu.edu/plantanswers/web.html
Plantanswers, Texas A&M - Horticulture Info for Texas MGs answering consumer questions

http://www.helsinki.fi/kmus/botgard.html
Worldwide Botanical Gardens

http://www.bulb.com
Netherlands Flower Bulb Information Center

http://aggie-horticulture.tamu.edu/kinder/kinder.html
Texas A&M "KinderGarden" Juvenile Garden Information

http://www.aabga.org
American Association of Botanical Gardens and Arboreta

http://net.indra.com/~topsoil/Compost_Menu.html
Composting Information

http://orchard.uvm.edu
The Virtual Orchard

http://www.herbnet.com
Herb Growing and Marketing Network's HerbNET

http://perennialplant.org
Perennial Plant Association

http://wizard.arsusda.gov/rsml/ppdb.html
USDA-ARS Pesticide Database

http://www.arborday.org
National Arbor Day Foundation

http://www.usda.gov
US Department of Agriculture Homepage

http://www.bright.net/~gardens/index.html
Ohio State Extension's Urban Gardening Program

http://ipmwww.ncsu.edu/cicp
International IPM Information

http://piked2.agn.uiuc.edu/wssa
Weed Science Society of America

http://www.sustland.umn.edu/
Univ. of Minnesota Sustainable Urban Landscape Information

http://www.agnr.umd.edu/users/hgic/diagn/home.html
Univ. of Maryland HGIC’s Plant Diagnostic Web Site

http://208.156.226.50/name.html
NGA Plant Namefinder

http://www.reeusda.gov/nipmn/
National IPM Network

Note: Internet addresses (URLs) are **CASE SENSITIVE**. If not typed exactly correct, you will be unable to access the site.

**Remember:** If giving pesticide recommendations, VCE-MGs are required to give “VCE Home and Grounds PMG” recommendations **ONLY**.