

# HORT: The Extension Horticulture Computer Information Directory at Virginia Tech

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*In 1987-88, HORT, Virginia Tech's Extension Horticulture Computer Information Directory, provided county Extension agents with prepared consumer horticulture press material that was timely, accurate, and easily accessed via computer. Each week, a cumulative total of more than 180 hours of agent time and 105 hours of clerical time were saved statewide through use of this material, which required approximately 10 hours per week of technician time to produce. HORT information reaches the gardening public through agent newsletters, radio spots, and newspaper columns and notes. HORT is also an important method for updating agents through direct contact.*

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The Office of Consumer Horticulture at Virginia Tech promotes the delivery of horticultural information to the residents of Virginia. County Extension agents perform a vital role in accomplishing this goal. However, as budgets tighten and personnel are reduced, local agents find they have neither the time nor the expertise to provide extensive amounts of gardening information to the public. HORT, the Extension Horticulture Computer Information Directory, was developed to mitigate the demands on agents' time while supplying accurate and timely gardening information to consumers.

HORT allows agents to access a series of horticultural files on the Virginia Tech mainframe computer through their office microcomputers. A variety of horticultural information is provided each month for use in updating agents' knowledge of home horticulture and in developing newsletters, newspaper columns, radio programs, and other educational media. It requires about five minutes to download the monthly package onto a diskette for editing and use in the unit office. The information can be used as it appears or edited for a particular application.

The monthly information is uploaded on the mainframe two months in advance of anticipated use. This allows agents in each part of the state to access the information they need when they need it, taking into consideration both climate variation across the state and work schedule differences.

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New files are uploaded by the first of the month and an index of topics mailed to agents to reinforce their use of the material. The following files are currently available in the directory:

*The Virginia Gardener Question Box* is approximately seven pages of gardening questions and answers. This file provides excellent material for agents' garden columns or newsletters.

*The Virginia Gardener Press Releases* consists of six press releases, one covering a specific insect. Any of the press releases in a given month can stand alone as an entire column or radio spot.

*The Virginia Gardener Monthly Notes* is a compilation of fifty or more gardening tips appropriate for each month. They are also good material for publication use and can be easily incorporated into radio spots.

*The Virginia Gardener Research Abstracts* is primarily designed to keep county agents abreast of significant advances in horticultural research.

Each month's copy is in excess of 10,000 words. All of the information is maintained on the mainframe so that previous years' files can be accessed as desired.

HORT provides significant financial and personal savings. It eliminates the need to send paper copies of this information to local Extension units, reducing postage and personnel costs. Because the information is transferred in electronic form, retyping is negligible; this saves clerical time in the local office. The subject matter is reviewed for accuracy by appropriate experts, reducing the Extension agents' preparation time while increasing reliability.

HORT is available to out-of-state users on the BITNET computer network and is currently sent to BITNET users in six states; requests for access should be directed to the principal author.

### **Survey of Agents**

To determine the usefulness of HORT, we mailed a survey to all unit offices in May, 1988. Of 107 offices surveyed, 90 responded. Of those agents responding, 73 reported using HORT. Statewide totals of the amount of time saved by each agent revealed that HORT saved more than 180 hours per week of Extension time (2.47 hours average per responding agent) and an estimated 105 hours per week of clerical time (2.06 hours average per responding office). Of those using HORT, 50.7% found the materials very useful, 32.8% found them moderately useful, and 10.9% found them somewhat useful. The remainder (5.6%) either found them not at all useful or failed to answer the question. The agents accessed the materials in a variety of ways: 24.7% of the users electronically dumped the files to a diskette, 63.0% printed a hard copy, and 45.2% accessed the mainframe files repeatedly, as needed. As more agents use the material in electronic form, there should be an increase in time savings, particularly among clerical staff.

Most agents used the files extensively as a personal professional update, though they also were heavily used in answering questions in the office and

in newspaper columns (Table 1). *The Monthly Notes* file was the most heavily used. One agent reported using the *Press Releases* in television programs.

It is difficult to determine the size of the audience receiving HORT materials. Agents frequently did not know or did not report the circulation or listening audience for newspaper columns or radio programs. Frequency of publication or broadcast also varied. Assuming the material was broadcast/published

**Table 1. Use of HORT Materials.**

File	Percent of Agents (Number of Agents Using)				
	Personal professional update	Answer office questions	Newspaper column material	Newsletter material	Radio program material
Question Box	47.9 (35)	49.3 (36)	31.5 (23)	30.1 (22)	23.2 (17)
Press Releases	61.6 (45)	39.7 (29)	50.7 (37)	34.2 (25)	34.2 (25)
Monthly Notes	64.4 (47)	53.4 (39)	50.7 (37)	50.7 (37)	24.7 (18)
Research Abstracts	49.3 (36)	23.3 (17)	15.1 (11)	9.6 (7)	5.5 (4)

only once per month (several agents reported weekly use), the totaled responses of those agents that gave concrete answers showed a minimum monthly radio audience estimated at 1,220,000 (24 agents answering), a minimum monthly newspaper audience estimated at 521,000 (28 agents answering), and a monthly newsletter audience of 22,300 (27 agents answering).

### Discussion and Recommendations

HORT is performing its intended function: agents are accessing the information and finding it to be useful in increasing their knowledge of home horticulture and in preparing mass-media materials. All of the included files appear to be desirable, and a large audience is benefitting from the horticultural information provided.

The most important item to note is the total agent and clerical time saved statewide. Each month, one Extension technician works 40 hours (.25 FTE) to produce HORT. Each month, this material saves Extension agents more than 720 hours in research and preparation time (4.5 FTE) and clerical workers more than 420 hours in typing and proofing (2.6 FTE). One agent commented, "(HORT) is the best example on campus of how a specialist can provide useful information to support media efforts by the field staff. If I decide to use some of the information in my column, I load it into WordPerfect, modify . . . it, then print it out. On those occasions when I may only have 30 minutes to prepare a column, this is a lifesaver."

Several agents returned comments similar to this one: "It wouldn't get done if I had to write what you send." HORT is not only saving time, it is providing information to the public that, in some cases, would be unavailable otherwise.

Problems identified through the survey include inefficient use of the directory. With only 24.7% of respondents downloading the files on a diskette, it is obvious that many agents are not taking advantage of possible reduction in clerical time. Printing a hard copy for future use may make a useful reference source, but it does not put the power of immediate word process-

ing into the agents' hands. And, repeatedly accessing HORT not only wastes time, it wastes long-distance telephone money. The lack of familiarity with optimum use of the system may be remedied through in-service training of agents or instructional mailings.

Another problem identified in the survey results is the idiosyncratic use of the various files by different agents. Some agents seem to use only one file and ignore all others. This is a minor problem, because the agents in question may not require the other files. However, to ensure that agents are getting maximum use out of the files, suggestions on ways to use the files also might be incorporated into the in-service training or mailings.

Survey results strongly encourage the Office of Consumer Horticulture to, in one agent's words, "keep up the good work." HORT is an educational program meeting statewide needs with efficient costs. Further improvements, including training agents in the use of HORT, should make it even more successful.

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**Correction: In the "Reviews" section of the *ACE Quarterly*, Volume 71, Number 4, 1988 the review of "Discovering the Future: The Business of Paradigms" should be credited to James W. King, University of Nebraska.**

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