teams would be able to effectively and correctly place the appropriate plant species in the appropriate location, according to the conceptual plan (Fig. 1).

The Parent Teacher Organization recruited the volunteer planters from its own membership, local horticultural clubs, and the local neighborhood. On the planting date, more than 335 volunteers worked to install the garden. They ranged in age from under 4 to over 70. Many of the volunteers were students, so the installation itself had an educational purpose. The field coordinator and team leaders instructed the volunteers in correct planting procedures. All 227 individual plants were installed in approximately 7 hr, including the lunch break.

During the time immediately after the installation of the plants, the outdoor classroom was finished by the addition of 6 benches, a stage, and a wooden bridge over a low area (which had been planted with baldcypress). Funds for this were provided by the school and the Parent Teacher Organization, and labor for the construction was donated by several of the volunteers who had worked on the landscape installation.

Uses of the Outdoor Classroom

Since the installation, the native plant garden has become an integral part of the school's program. Obvious uses in the school's science program include field taxonomy, nature study, and related topics. These have been augmented by uses by the other 2 magnet programs in the school: fine arts and music. Recitals by the school's string ensemble have become a very popular use of the outdoor classroom, one that had not been initially anticipated.

Another unanticipated benefit of the outdoor classroom is that it has become a focus of community involvement in the educational process. As word of the project spread, more individuals became involved. A local developer, for example, donated a large (3 ton) boulder to enhance the landscape and afford the students an opportunity to study local geology. A group of Seminole Indians, offered to build a chickee in the garden. In the time since the Outdoor Classroom's installation, the school psychologist has reported a reduction in the number of student behavior problems. While it is obviously not possible to establish a cause-effect relationship, many persons associated with the project believe that the high level of student, parent, and neighborhood involvement in the installation and use of the Outdoor Classroom did have a positive effect on student behavior. These kinds of activities all illustrate the vitality of outdoor classrooms as important functional units in educational programs to instill in students a knowledge and appreciation of natural history.

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WHO DOES THE GARDEN WORK?[1]

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Abstract. **Recent studies of labor allocation on the family farm in north Florida have shown that women are doing more of the farming now, as compared to the 1930s. Are they also doing more of the gardening? Is the typical north Florida rural garden "his" garden or "her" garden or "their" garden? How is family labor allocated to the different gardening tasks? An examination of survey data from 100 farmer-gardeners in north central Florida, and more detailed garden histories from 25 farmers, reveals some of the answers to these questions. In general, results show that farm women's contributions to the garden** complement **rather than compete with those of farm men. Even in the garden, complementarity is the norm which allows both men and women to focus their energies on the one goal of family farm survival.**

The contribution of farm women and family labor to the survival of the family farm in the U.S. and Florida has been an ignored aspect of farm entrepreneurship until recently (1, 5, 14). In Florida as in many agricultural states of the U.S., however, the contribution of the farm wife or agribusiness woman has assumed a new importance as inflationary pressures on land, equipment, and operating expenses force the male, able-bodied farmer on the small and medium-sized family farm to seek off-farm work to support the family and subsidize the farm (4, 6, 10, 13, 17). The co-managerial role of the farm woman became even more important in the 1970s, when off-farm income became more important than farm income for more than half of U.S. farms with gross sales of $40,000 to $100,000, and for more than one-third of the farms with gross sales of $100,000 to $200,000 (18).

A recent survey of labor allocation on the family farm in north Florida has shown that farm women are doing more of the farming now, as compared to the 1930s (5, 6). The data suggest that although farm men are indispensable (and are doing more farm work and off-farm work than the women), Florida farm women are now farming an average of 22 hr per week, as compared to 11 hr per week in the 1930s (6, 15). Evidence also shows that more farm women perceive themselves to be *farmers* rather than farmers' *wives*: 56% of the 50 farm women interviewed considered

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themselves to be full- or part-time farmers, while 36% perceived themselves as farmers' wives (6). The Florida data thus agree with National USDA data which showed that in 1980, 55% of U.S. farm women considered themselves to be a "main operator" of the family farm (11).

Although women are doing more of the farming now, evidence also shows that farm women's contributions to the Florida family farm *complement*, rather than *compete with*, those of farm men on almost every work dimension. Data show that some Florida commodities are mainly women's commodities, because most of the work done to produce them is usually done by women. These include chicken houses (both layers and broilers), goats, pecans, assorted poultry, and the garden (5). These commodities usually complement men's commodities, which include row crops, cattle and hogs, pasture, timber, and hay, as well as the "joint commodities" which are joint ventures of both husband and wife and include tobacco, cotton, vegetables, and nursery operations.

Rather than focusing attention on which commodity is whose, however, it is more instructive to look at who within the family does what task (12). On the farm, both national and state data show that some tasks are mainly women's tasks, which typically include bookkeeping, caring for small animals, "gofering," and chauffeuring (6, 11). These tasks complement the traditionally male tasks such as plowing, marketing, and the repairing of farm equipment. Finally, data on the off-farm work involvement of Florida farm women show that it also *complements* rather than competes with the off-farm work involvement of their men (6). Clearly, it is this complementarity that allows both men and women to focus their energies on the one goal of keeping the farm going and the family together.

Given that Florida farm women are doing more of the farming now, as compared to their men, are they also doing more of the gardening? Is the typical north-central Florida farmer's garden "his" garden or "her" garden? If it is "their" garden, how is family labor allocated to the different gardening tasks, which include clearing the land, planting, maintaining the garden, harvesting, and processing and preserving garden produce?

Materials and Methods

In order to answer these questions, I examined survey data collected in person from 50 family farms in Baker and Gilchrist counties in the spring and summer of 1981, as part of a more general study of farm women's contribution to the family farm (5). Farm women were therefore asked by women researchers to relate who did what gardening tasks, and for how long. In a follow-up study devoted just to gardening, more detailed garden histories were collected from 53 farms in Gilchrist and Levy counties during the fall of 1981 (3, 7, 8, 16). During these personal interviews, a questionnaire was administered to the main gardener in the family, male or female, by one male researcher (in Levy County) and one female researcher (in Gilchrist County). In each county, the set of sampled farms was chosen from extension lists and personal contacts, based on the criterion of representativeness of the sample to 1978 Agricultural Census data on the distribution of county farms by operating size and race.

Results

> Concerning the garden, I tell him what I want grown and he plants it. Then I harvest it and I put it up. I would say the garden is totally mine.
>
> (A Baker County farm woman)

Initial survey results from Baker and Gilchrist counties in 1981 show that the North Florida farmer's garden is a family-oriented and family-directed affair, because most family members do *some* work in the garden itself, as well as *some* preservation of garden produce. As the above quote claims, however, the garden in this sample is more the responsibility of the farm wife than the farm husband. Of a total of 35 gardens planted in 1981, the garden was considered "hers" in 23 instances, "his" in 5 instances, and a joint venture in 7 instances (5).

Nevertheless, men help the women in the garden by performing some of the garden tasks, just as women help the men with "men's" commodities of corn and cattle. As seen in Table 1, men usually prepare the land and plant the garden with the tractor, while the women walk behind the planter changing seeds in the planter. Men then leave a few rows vacant so that women and children can plant these later by hand. Women and men then share the irrigation and hand cultivation tasks during the garden season. Women's participation really increases with the harvest, although men even "shell and shuck" garden produce to help the women preserve it, since the harvest and preservation period is the time of peak labor demand. To preserve quality, farm women must "put up" the garden when the vegetables, and not the women, are ready.

Table 1. Number of men and women performing certain gardening tasks (n=50).

Type of task	Number of men[z]	Number of women[z]
1. Decide what to plant	3	2
2. Prepare the land	28	4
3. Plant	30	9
4. Hoe	15	25
5. Harvest	17	32
6. Shell and shuck vegetables	11	27
7. "Put up" or process for storage	3	36

[z]Number of respondents does not necessarily sum to the number of gardens planted in 1981, as women who usually plant a garden but did not garden in 1981 also responded to this question.

Data in Table 2 show that in North Florida as in other parts of the world (9), women contribute more labor than men to food crops and subsistence production, although men usually contribute more labor to cash crops. In this sample, women do an average of 126 hr of garden work during the 8 to 10 weeks of the spring-summer garden period as compared to 51 hr of men's garden work and 66 hr of children's garden work. On average, women work two and a half times as many hours as the men on garden produce.

Table 2. Hours of work per garden performed by men, women and children.

Hours worked by:	Baker County (n=23)	Gilchrist County (n=12)	Both counties (n=35)
Women	141.9	95.5	126
Men	52.8	47.6	51
All children at home	58.2	77.7	66

Given this evidence that the North Florida farmers' garden is a *women's* commodity, because most of the work done to produce the commodity is usually done by women, it was decided to further test these results by eliciting more detailed garden histories from a second sample of farmer-gardeners in Levy and Gilchrist counties. In addition, a male researcher was found to interview in Levy County (3); whereas a female researcher was found to interview in Gil-

christ County (16). Both research assistants interviewed the family member identified as "the main gardener" in the family, whether male or female. These procedures were implemented because previous studies of intrahousehold division of labor report that data on women's labor force participation, hours of work, and contribution to agricultural production depend on:

1) *who* within the family (husband or wife) is being asked about the wife's participation, and
2) *who* within the research team (male or female) is doing the asking.

It was thus hypothesized that the male research assistant might find the women's contributions to the garden to be relatively less than was found by the female research assistant in Gilchrist County. If so, his findings would challenge the conclusion (reached by the all-female team of Downie, Gladwin, and Weston) that the *average* North Florida garden is a women's commodity.

Results of a Further Test

Results did show a gender bias for certain questions, but this bias did not affect hours of work data. In this second sample, therefore, the garden is a women's commodity. However, a gender bias did appear when family farmers were asked, "Who is the main person responsible for the garden in the family?" Of the 28 families interviewed by our man in Levy County, 17 families reported that the farm man was the main gardener, while 6 reported that the woman was the main gardener, and 5 reported that both husband and wife were jointly responsible for the garden (3). This situation was in contrast to that of 25 farm families in Gilchrist County, where the woman researcher found only 9 families with a man as the main gardener, and only 5 families with a woman as the main gardener, but 11 families with both husband and wife jointly responsible for the garden (16). A Chi-square test showed the difference to be significant at the 0.025 level. Clearly, who is called "the main gardener" in the family partly depends on who is doing the asking.

The North Florida Farmers' Garden Plan

The results of eliciting more detailed garden plans and the times required to perform garden tasks, however, were more consistent with the initial results that the garden is a women's commodity, and thus revealed no gender bias. Results are summarized in the North Florida farmers' usual garden plan in Table 3, which was induced from individual garden plans elicited from a subset of 25 of the 53 families sampled. They were asked, "When you planted your last year's garden, what did you do first? Then what did you do? Who within the family did it, and for how long? When was it done?" In this open-ended way, 25 individual garden histories were elicited which were then combined into one group plan, by the researchers' noting which rules in the individual plans were shared by other farmers, and which were not shared or were exceptions to the general rule. An example of a shared rule is rule 1: "Think about what to plant in the garden; don't sit and formally plan the garden." Data in Table 3 show that 17 of the 25 farmers follow this rule and don't take time out to sit down with paper and pencil and formally plan the garden. Thus the norm or group rule is *inductively* derived, by assuming the rule followed by the majority of the sample to be the norm, while that followed by the minority to be an exception to the (shared) rule.

Two features about the results in Table 3 are particularly striking. First, without summing the hours of work data, the garden appears to be a family affair with men's labor dominating and women's labor helping out. Although it certainly is a family project on average, with men and women doing some of each garden task, we will later sum the hours of work on separate tasks to see who works more in the garden. Second, the results clearly show the North Florida farmers' usual garden is a minimal-time, minimal-input garden. Farmers, for example, don't take the time to formally plan the garden; nor do they make a special trip to town to buy garden inputs. To save costs, they usually use the tools and other inputs they have on hand; and only lime, spray, or sidedress when they see evidence that the plants require it.

Data on the sexual division of labor in the garden, noted by hours of work in Table 3 and summarized in Table 4, also seem to fit this general pattern. Although Mukhopadhyay (12) claims that cultural precedent determines to a large extent who does what task in the family, garden tasks seem to be divided between family members according to who can do the task *quicker* and *as part of his or her other daily activities*, so that minimal effort is spent on the garden. More specifically, data on hours of work by garden task in Tables 3 and 4 show the following allocation of labor within the family.

Men do more of the earlier garden tasks. They do more buying of the inputs (Rules 2, 3, 6) and more repairing of the garden tools (Rule 4), although a minimum of time is involved. They spend 3 times as many hours as women preparing the garden soil: plowin', discin', and tillin' (Rules 6-16). In general, they seem to do both physically-demanding tasks requiring upper body strength (e.g., plowing, staking, and fencing), tasks that require use of power tools and machinery (e.g., tractor work), distasteful tasks (e.g., obtaining manure), and dangerous tasks (e.g., spraying, dusting). That men perform these kinds of tasks in other cultures and times has been well documented in the literature on the sexual division of labor in the family (2, 12).

Women do more of the later tasks in the production sequence and those closer to the house, a fact which also seems to be a universal feature of the sexual division of labor (2). In the North Florida farmers' garden, women start to put in as much labor as the men during the planting period (Rules 17, 19). As shown in Table 4, they spend on average 5 hr planting, as compared to 5.34 men's hr. To maintain the garden after planting, men and women spend almost equal time weeding and watering, although men do more fertilizing, spraying, and staking. Women, however, have almost a monopoly on harvesting and preserving the garden produce. They "finish up what the men start," by spending 17.23 hr harvesting, as compared to 5.5 men's hr. Focusing only on hours of work in the actual garden (ignoring post-harvest work), data in Table 4 show that men spend a total of 46 hr while women spend 47 hr in the production of garden produce. Then women spend an additional 43.3 hr preserving (canning, freezing, pickling, and drying) garden produce, while men on average spend 1.6 hr helping them.

Discussion

Summing up pre- and post-harvest garden work, I conclude that the garden is a woman's commodity, because women on average do 90 hr of work while men do 48 hr of work per garden. Although these data include time spent preserving garden produce which occurs in the kitchen rather than the actual garden, I argue that to ignore the preservation work is to ignore the *main reason* families garden, which is to have an inexpensive source of high-quality, nutritious fruits and vegetables all year round. That farm families garden to save money and be self-sufficient in

Table 3. North Florida farmer's usual garden plan.

Usual time	Usual command
	(I) Plan the garden
Early December-March, just before soil preparation	1) Think about what to plant in the garden; don't sit and formally plan the garden (17 of 25 cases) Mo:[z] 1/2 hr; Fa:[z] 1/2 hr
January-March, just before planting	2) Buy all seeds and/or plants locally, as part of regular trip to town; don't make a special trip (20 of 25 cases) Mo: 10 min; Fa: 3/4 hr
January-March	3) Buy other variable inputs (fertilizer, insecticides, lime, etc.) (25 cases) Mo: 1/4 hr; Fa: 3/4 hr
	4) Use the garden tools/irrigation system that you already have; repair a garden tool when it breaks down (23 of 25 cases) Mo: O hr; Fa: 3/4 hr
	5) Don't build a permanent structure for the garden if you already have one or don't think you need one (e.g., fence, arbor, cold frame, greenhouse) (21 of 25 cases) Mo: 10 min; Fa: 10 min
	(II) Prepare the soil
November-mid March	6) Obtain/prepare organic fertilizer: manure, compost, dried leaves, or green manure (15 of 25 cases) Mo: 10 min; Fa: 3 3/4 hr
Early January-mid March	7) Do a major cultivation (plowing, tilling or discing) at least once (24 of 25 cases) Mo. 40 min; Fa: 2.4 hr N: 1.3 hr
	8) Use tractor and disc on the first breaking up of the soil (11 of 25 cases)
Early January-mid March	9) Let the first tilling be the major tilling (22 of 25 cases)
Early January-mid March	10) Do a second tilling to kill weeds, pulverize the soil and expose nematodes to sun on a second day (15 of 25 cases) Mo: 1.7 hr; Fa: 1.2 hr
Early January-early April	11) Use a *mechanical tool* on the second discing or tilling (8 of 14 cases that do two discings)
	12) Don't do a third tilling or discing (12 of 13 cases)
Early December-early March	13) Lime the garden this year, if your frequency of liming rule in (14) says to lime the garden (9 of 25 cases) Mo: 0 hr; Fa: 10 min
	14) Lime when the garden seems to be doing poorly, if it's been awhile since it was limed; don't follow a set schedule of how often to lime (15 of 25 cases)
Early December-mid March	15) Apply organic fertilizer if have obtained organic (15 of 15 cases) Mo: 1 hr; Fa: 1.8 hr
	16) Do not apply nematicide or herbicide before planting (24 of 25 cases)
	(III) Plant the garden
	17) Do not plant any seeds in a cold frame or house: plant everything directly in the garden (14 of 25 cases) Mo: 10 min; Fa: 10 min
	18) To reduce problems with nematodes and improve garden fertility, rotate some or all garden crops (24 of 25 cases)
Early January-early April	19) Use your own judgment based on past experience to determine the range of the dates when you should plant all of your crops in the garden. Plant as early as you can (13 of 25 cases) Mo: 2.6 hr; Fa: 2.3 hr
	20) Plant every crop only once (20 of 25 cases) Ch:[z] 0.5 hr
Early January-early April	21) Plant on two separate planting dates (9 of 25 cases) Mo: 1.6 hr; Fa: 2.4 hr; Ch: 8 min + 3rd planting: Mo: 0.6 hr; Fa: 0.5 hr
	22) Use tractor or push plow to open up the rows for some seeds/plants on some planting dates; and plant the rest of seeds/plants by hand (22 of 25 cases)
	23) Fertilize chemically at plantings (16 of 25 cases)
	(IV) Maintain the garden
Late February-late May	24) Weed and cultivate all of the garden (20 of 25 cases) Mo: 10.9 hr; Fa: 9.3 hr
	25) Start weeding all of the garden shortly after plants come up and continue weeding *at least two times a month* until harvest (10 of 20 cases)
	26) Use power tool (rototiller, tractor and tiller, push plow) to weed and cultivate the garden (15 of 21 cases)

Table 3. North Florida farmer's usual garden plan. Continued

Usual time		Usual command
Early April-mid May	27)	Don't thin seeded garden plants (15 of 25 cases) Mo: 1 hr; Fa: 12 min
Early February-mid May	28)	Sidedress or fertilize again the *whole garden* with chemicals (14 of 25 cases) Mo: 1/2 hr; Fa: 2.3 hr; N: 10 min
Mid February-mid May, 2-4 weeks after planting	29)	Fertilizer or sidedress when plants are at the correct height for fertilizing, using your own judgment as to correct height, based on past experience or recommendations (19 of 24 cases)
February-April	30)	Water the whole garden *when dry*, during the time period from planting until harvest time (24 of 25 cases) Mo: 7.2 hr; Fa: 9.3 hr
	31)	Use an inexpensive irrigation system (hoses and sprinklers) (21 of 25 cases)
March-July	32)	Spray/dust crops only where there is evidence of bugs or mold (21 of 25 cases) Mo: 20 min; Fa: 1 1/4 hr
	33)	Don't companion-plant certain crops together to reduce problems with bugs if you are unaware of this method or don't believe it is worthwhile (23 of 25 cases)
Mid March-late April	34)	Stake and fence plants that require staking or fencing (20 of 25 cases) Mo: 20 min; Fa: 3/4 hr
		(V) Harvest garden vegetables
Late April-mid June	35)	If your garden is near the house and you have the time to check on the ripeness of plants (using indicators such as color, size, and feel) everyday during the maturation period then check on the plants every day. Harvest when ripe (22 of 25 cases) Mo: 17.2 hr; Fa: 5.5 hr
Late April-mid June	36)	Preserve or "put up" garden vegetables. See the decision to preserve (can, freeze, both, or dry) garden vegetables (25 of 25 cases) Mo: 43.3 hr; Fa: 1.6 hr; Ch: 1.3 hr

[z]Mo = the mother; Fa = the father; Ch = the children in the family; N = neighbor(s).

Table 4. Hours of work per garden by men and women (n=21[z]).

		Average man's hours	Average woman's hours
I	Plan the garden	2.70	0.96
II	Prepare the soil	9.33	3.59
III	Plant the garden	5.34	5.00
IV	Maintain the garden	23.08	20.21
V	Harvest and put up the garden		
	a) Harvest the garden	5.50	17.23
	Sub-total	45.95	46.99
	b) Process garden produce	1.6	43.33
	Total hours	47.55	90.29

[z]The returns and costs of these 21 gardens, under 2 acres in size, were described previously (7, 8).

high quality produce—to "keep out of the grocery store"—has been shown in previous summaries of these data (7, 8).

Although the garden is a woman's commodity, like beef cattle is a man's commodity *usually*, data on garden histories also clearly show that women's work *complements* rather than *competes with* men's work in the garden. Men usually start the garden, and women finish it. This division of labor is necessary for the family to efficiently produce high-quality food with the minimum of time and money. The complementarity that accompanies this division of labor also means that the topic of "woman" cannot be dealt with in a vacuum. Research which isolates women from their families cannot be representative of women's socio-economic function within the real context of their everyday lives.

Finally, results presented here also show an expected *gender bias* in some of the data collected. When men interview men about intrahousehold allocation of labor, women's contributions are rarely "played up." Even if women work equal or longer hours in the garden, they are rarely hailed as "the main gardener;" nor is the garden considered to be the responsibility of both men and women, as tends to be the case when women interview men and women about the garden. This gender bias, however, does not affect reported hours of work by specific garden tasks, as reported in Table 3. Either farm families do not keep good enough garden records to realize that in total, women work longer hours; or the men farmers interviewed are sufficiently impressed by a male researcher to "play up" their own contributions to the family garden. Whatever the reason, these results show the necessity of researchers' eliciting good garden records, detailing hours of work on specific garden tasks, in order to determine who does the garden work.

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EVALUATION OF IMPATIENS: SPRING AND FALL 1983[1]

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Abstract. **Impatiens** (Impatiens wallerana **Hook. f.) cultivars were grown in replicated trials at the Gulf Coast Research and Education Center, Bradenton, FL during the spring and fall of 1983. Produced as bedding plants, the impatiens cultivars were grown under shade and evaluated for time to flower, flower size and color, growth habit, plant height and width, and general horticultural characteristics. Cultivar performance in 10-inch baskets and 4-inch pots was evaluated in the fall. Results indicate that there is a wide range of cultivars from which producers may select for bedding plant or container use. Cultivar selection may be based upon flower color, earliness of flowering, and anticipated final plant size.**

Sales of Florida bedding plants, foliar and flowering, totaled $6.5 million in 1981, the last year that production and sales figures were documented by the USDA (1, 2). This was a 25% increase from 1980 and projections estimated a 14% increase in production area for 1982. Trends indicated that the 1980's would have a production outlook which was excellent (3). Since Florida was ranked sixth in the nation in 1981 in the production of flowering and foliar bedding plants, evaluation of prominent flowering annuals was regarded as necessary to provide information on cultivar performance to commercial growers. Bedding plant evaluations at the Gulf Coast Research and Education Center, Bradenton, FL in 1982 included marigold and zinnia (5, 6).

Impatiens was chosen for evaluation in 1983 since it is the best-selling bedding plant according to a survey of bedding plant producers (8). It is ranked as the fifth most popular annual in catalog or direct packet seed sales to homeowners (National Garden Bureau, Inc., personal communication). The suitability of impatiens to growing areas with low light conditions has made it useful in the landscape where many other annuals perform poorly. The versatility of this species is increasing due to the development of improved dwarf cultivars, hybrid strains, and an expanding color selection (4). Impatiens were evaluated when grown in beds during the spring and fall, and in containers (4-inch pots and 10-inch baskets) during the fall.

Materials and Methods

Field bed trial—Spring and Fall, 1983. Seed of 24 cultivars of impatiens in the spring and 30 cultivars in the fall were sown in flats filled with peat:vermiculite medium (1:1 v:v) on January 3 and August 31-September 1, respectively. Seedlings were transplanted 2 weeks later into Todd Planter flats (1½ x 1½ inch cell size, model 150) filled with peat:vermiculite medium (1:1 v/v). Both sowing and transplant medium were identical and amendments included dolomite (16.9 lb./yd^3), superphosphate (0-20-0 at 5.6 lb./yd^3) and Micromax (1.1 lb./yd^3). Transplants received 465 ppm 20-20-20 liquid fertilizer (Nutrileaf) at irregular intervals until setting in field beds.

Beds of EauGallie fine sand (7) were formed under a black polypropylene shade structure (30% shade) to a width of 39 inches on 7-ft centers. Beds were fumigated with Dowfume MC-2® (98% methyl bromide and 2% chloropicrin) at 650 lb./acre and covered for 3 days with polyethylene sheets. Slow release fertilizer (890 lb./acre Osmocote® 18-6-12) was broadcast over the bed surface and lightly incorporated by hand raking. Superphosphate (0-20-0) plus fritted trace elements (FTE 503®) and dolomite were applied to the trial area before bedding in the spring at the rate of 540 lb./acre each, while in the fall only superphosphate plus fritted trace elements was applied with the other bed fertilizer at the rate of 500 lb./acre. Irrigation water was supplied via 2 trickle tubes (4 mil biwall, 4-inch orifice spacing) which were spaced 7 inches to each side of the bed center. Water was applied at an average rate of 0.15 to 0.2 inches per day as warranted and supplemental to rainfall. The beds were covered with white polyethylene plastic.

Plants were set into beds on 14-inch centers with 3 rows per bed on March 9 (spring trial) and October 10 (fall trial). Four replicates of 6 plants per plot were arranged in a randomized complete block design. Cultivars were evaluated as in previous studies (5, 6). The spring trial was terminated on July 21 and the fall trial was killed in a freeze on December 25.

Ten-inch basket trial—Fall 1983. Seed of 36 impatiens cultivars were sown and transplants produced as described above. Plants were set in baskets (10-inch diameter) filled

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