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Women in Plant Pathology: An Assessment

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My topic is an assessment of women in plant pathology with respect to women in our professional society and our profession. I have chosen this topic because several things disturb me in 1987 about the status of women in plant pathology, as well as in society at large. These concerns about women in scientific professions are also recognized by other organizations, such as the National Science Foundation (15). APS presidents are supposed to lead the society in the direction members want to go: I believe that the direction for APS is toward equitable opportunity and treatment of all people in our profession. If we are to solve problems from biotechnology to biological control, our collective best talents will be required. My thesis is that we are not maximizing the use of such talent.

My perspective on the issue of women in plant pathology may well not be representative. The more I have read in the last few years about women in the different professions and in the business world, the stranger I seem. For example, although it is nearly universal that married men with families will combine an academic career and advance to the positions of professor, perhaps department head, and even president of their professional society, such a combination is highly unusual for women. I cannot be a role model for all women in this society nor would I claim to speak for all of them. And men should not judge all women by my remarks. This address is also a benchmark commentary on where we are for the use of some future historian of our profession.

In speaking about women in plant pathology, I want to emphasize some limitations on what I shall cover. First, only selected data are available; such data are almost exclusively confined to academic situations. Thus, extension, government, and private business assessments will be few. Second, some groups of women and men will hardly be mentioned, again for lack of data. Third, my remarks are confined to American society. And, fourth, I believe that much of what I say will be applicable to both men and women, although interpretations may well differ. You need not like or agree with what I say, but I hope that I give everyone something to think about.

The reasons for choosing this topic are several. The Committee on Women in Plant Pathology, at my request, did a survey to assess how the profession was or was not serving women's needs. Questions dealt with experiences in graduate school, in beginning careers, barriers to career advancement, strategies for advancing their careers, and discrimination on the basis of sex. They were also asked for suggestions on how the society might better serve them. The results are revealing in showing the opportunities for women, how far we've come, and how far we have yet to go. I can only incorporate some of the data and comments into this presentation. The survey results will be published separately; the several hundred verbatim comments to different questions will be available through the APS headquarters office. The questionnaire was generally well received, as indicated by a very high response rate of approximately 86%, comprising 493 replies. I maintain that such a large sample is, therefore, representative of the women in our society.

Another reason for talking about this issue is that some people see the times we live in as a period of leveling off or even retrenchment with respect to women's advancement in the professions, as described recently by the National Science Foundation (15). I share this concern—women seem to have become less, not more, visible in APS. This is paradoxical in that the number of women in APS has clearly increased. For example,

except for myself, there are no other women on our governing Council. There is only one woman officer in our six divisions. This is less than it was a few years ago (14). It's been 31 years since Helen Hart was president of APS; I am concerned that it may be another decade or more before another woman follows me in this office. Relatively few women head APS committees. Few women serve on our editorial boards. This is not the time or place to philosophize about the reason for this lack of visibility, but I point it out as a deep concern. The view that I will develop in more detail is that women have to become more involved if they want to make a difference and also that more men need to consider women as candidates for different types of positions and tasks—that is, men have to open up the so-called old boy network.

The women in this audience and in APS are a select group. They have survived many years of difficult work to get to where they are. All women in APS owe a great deal to the men who have helped in various facets of their careers. I certainly owe a great debt to the many men who have supported me, believed in me, and encouraged me to take risks. I am grateful and so are the women in APS for such caring men. Society needs more of them.

I want to divide this presentation roughly into four parts, some of which will sometimes merge. First, I would like to present some facts to give some perspective to my remarks. Second, I will deal with what I call the realities of life. This is life as it is, as least as I see it, not as it should be. Third, I will deal with some perceptions. Our perceptions influence attitudes toward one another, and attitudes are crucial for career advancement. And fourth, I will have some specific recommendations for consideration by individuals and the society.

Facts for Perspective

Let's examine some facts about women in plant pathology and in other scientific professions and in business.

The number of women in the profession has increased over the years. As of May 1, 1987, 16% of the membership (651 of 4,116) was female. In the last decade, 27% of new members were women (526 of 1,962). Informal information from department heads is that women currently comprise 40–50% of all students. Thus, the number of women entering the profession is increasing, while the number of men is staying approximately the same or even declining.

Many studies of American Society have shown that women have made real strides in increasing their participation in science over the past decade. This is the case at every degree level, and in every field and employment sector (15). Furthermore, according to the National Science Foundation, women in agricultural sciences enjoy very high salary equity in entry-level positions. Women's median salary, compared with men's, among full-time employed doctoral scientists approaches 96% (15). The percentages for many other scientific professions are much lower.

Beyond entry-levels, however, regardless of degree level, field, or type of employer, salary differences between men and women increase with additional years of experience (15). Thus, women of equal rank and experience earn less than their male counterparts (12, 15). In academia, fewer women receive tenure, and when they do, they do so later than men. Hiring and promotion of women faculty and administrators lags far behind the enrollment of women students, and so on. The perception of women in APS is that the disparities that I have mentioned are widespread in our own profession.

Women have been getting between 11 and 17% of the Ph.D's in

life sciences, including agricultural sciences, for the last 15 years (15). However, they represent only about 4% of the faculty in tenured positions (7). One question is, of course, where do they go, and I cannot answer that. Only 29 women or 3% were in plant pathology in 1985, the latest year for which figures are available (B. Cooper and J. L. Henderson, personal communication, June 4, 1987). Based on these sparse statistics, I believe that APS is appropriately recognizing women scientists in its awards and honors. Thus, nearly 3% have been so recognized for their achievements, as seen in the listings of APS Awards and Honors. This is representative of their numbers, at least in academic positions.

Another fact of American Society is that more and more women are working, including women with children. It is, of course, the norm in American society and that of society as a whole, that men and fathers work. What is perhaps surprising, however, is that recent data show that single and married women are equally productive, at least as measured by something that we consider very tangible in academic circles, namely, publications (3). That is, if married women are given the opportunity for employment and publication, they do so equally to single female colleagues. In addition, it is of interest and surely surprising to many, including myself, that married women with up to four children publish on an equal basis. However, I need to recognize that the same sociologists (3) indicated that women as a whole publish less than men; nevertheless, marriage and family obligations did not appear to account for this difference. This difference, then, needs further investigation.

The foregoing remarks are facts that are independently verifiable.

Realities

American Society professes to have a single standard of performance but, as I think almost everyone in this audience would agree, operates on a double standard for men and women. One woman in APS expressed it very well:

I believe a woman always has to do a top-notch job to be accepted as adequate to good. Any failure to be the best can result in all women being criticized, instead of being judged individually, as a man would be.

Another reality is that a career does not come without a cost. These costs are even discussed in family newspapers. In American society, that cost is borne disproportionately among women and particularly married women with children. Married women scientists with children remain scientifically productive, but they report having had to eliminate almost everything but work and family, particularly when their children are young (3). There is general acknowledgment that managing the simultaneous demands of a research career, marriage, and motherhood isn't easy: it requires organization and an elaborate set of personal adaptations (3). A career for women requires very high levels of energy, enthusiasm, and endurance. The price of a career is satirized even in literature that depicts common life, namely that shown in comics. For example, the comic strip, "Cathy," about a single career woman, last year showed a panel that depicts the idea that women who work have the worst of two worlds. The concept that it would be the best of two worlds is simply not considered. I don't think men could relate to this particular comic strip depiction—a career and at least some household responsibilities are considered normal activities. An even more savage depiction of career women is that by G. Trudeau, whose comic strip, "Doonesbury," is often a striking commentary on American life. A panel from last year shows a woman's responses to the question about having it all. The first panel shows Michael Doonesbury addressing a woman friend, Cassie. He says that J. J., his wife, "asked me to pass a question along to you." In the second panel, he says "ever since we got married she's been feeling the usual pressure to have it all or, at least most of it." The third panel continues with him asking how a woman can balance a demanding career, a family, and a social life without losing her mind. The reply is

"Simple, I have insomnia, no friends, kids I barely know, and a husband who's about to file for separation." He is somewhat taken aback and asks "mind if I dress up that answer a little bit?" Cassie replies, "Not at all, tell her I just smiled modestly as I slipped out for handball." Again, I believe only women can relate to this. No man I have ever known would be asked such questions, much less give such a response, although career demands certainly can be difficult for men to balance with the other facets of their lives.

Working parents, especially mothers, in American society, still are subjected to feeling guilty in their daily lives. The columnist, Judith Martin, (Miss Manners) wrote (1986) that "the working world is set up as if having children is a hobby, that the few who wish to practice must manage as best they can, without annoying a Society that has no stake in future generations (9)." Even some men might feel a twinge of guilt at that statement.

Another area of reality is that of job interviews. These are still very often different for men than for women, regardless of marital status. Women, but not men, will be asked illegal questions about their personal lives, e.g. children. I have never heard of any man expressing concern about the number of children a male candidate might have and their potential effect on his career. Our university recently hired a man with nine children—only women batted an eye!

Another reality is that the higher the position women aspire to, the greater the discrimination in all fields and professions (1,3,6). Women find their advancement blocked by what *U.S. News and World Report* calls a "glass ceiling," an invisible barrier that is transparent enough to provide a view of the executive (administrative) suite but tough to break through. Even when women achieve such positions, their credibility is questioned more than that of men, and their actions are subject to greater scrutiny (12). I can attest to that.

Networking is another area that is not as developed or as accessible to women as to men. Networking, i.e., the establishment of contacts and exchange of information with peers is an integral and accepted way of life for men in their career development. Women in plant pathology (1987 survey) indicated that many felt it is difficult to break into the "old boys" network in APS. Women find it more difficult than men to establish such contacts with individuals who are secure in their own careers and can help them. Obviously many men have been of such assistance to women, else no women would be here in this audience today. There are also formal networks for women professionals (11) e.g. the Association for Women in Science, which deals with issues of concern to women scientists—from equity to employment practices and experiences in different fields. Women in APS might provide such a network through the Women in Plant Pathology Committee or simply informally by talking to people about career concerns. My own networking is probably not representative in that it is almost exclusively with men. Men know how to "play the game" and know where the power is. Many men will be very candid when I visit with them personally or by telephone about career or administrative concerns. Of course I load the deck, so to speak, since as a seasoned veteran in APS, I know who will be of help. I also share my experiences with people who ask. It is interesting that more men than women ask my advice and more men than women take my advice. I'm uncertain how to interpret that.

Perceptions

People's perceptions influence their attitudes. We have seen this in biotechnology where, for example, quite a few individuals, including some scientists, perceived that field-plot tests of ice-minus *Pseudomonas syringae* were dangerous. This affected their attitude about the tests and biotechnology in general. Similarly, perceptions of women, their capabilities, strengths, and weaknesses affect the attitudes of those around us.

My perception is that most women in APS feel satisfied with the profession and their experiences in it (Women in Plant Pathology Survey, 1987). The notable exceptions are in the critical areas of professionalism, expressed as not being taken seriously and discrimination in rank or salary. These concerns mirror those of

women in all the professions—whether science or not (3,6).

The most serious perception of women in APS, addressed by at least 40% of them, is that they are not taken seriously. This takes many forms, and I will attempt to address this in some observations. Some things do not seem to have changed since my graduate school days: it is still unfortunately a prevalent attitude that as soon as women announce that they will marry, they are not considered serious about or committed to their careers. While I was totally abandoned by my major professor when I got married, such total abandonment is rare today. Modified forms of abandonment are, however, prevalent. These include decreased financial and moral support, less attention than male students, and fewer opportunities for career advancement. I have never heard of a man being concerned about the effects of marriage on another man's career—on the contrary, it is usually viewed as a stabilizing influence.

Sandler and Hall (12) in their recent study of academic life made the following comments about the perception of professionalism.

One of the greatest problems women faculty and students confront is how to be taken seriously in the daily life of colleges and universities. This problem has strong linguistic components, since speech characteristics are often made into and evaluated as symbols of the person. The valued patterns of speech in college and university settings are more often found among men than among women speakers.

Let me continue with this perception of communication differences. Virtually all social and psychological studies of communication show differences between men and women and how they perceive the other. Men learn how to communicate more effectively from an early age, so that for most men it becomes an unconscious act. In my prejudiced view, and that of many others—but not everyone—if women are to be taken seriously, they must realize that just knowing their subject and working hard are not enough. They have to recognize that both nonverbal and verbal behavior are essential to reflect their intentions and to be considered effective by the receiver (2). Recent research suggests that up to 60–90% of a person's initial impact is from nonverbal messages, and that within 60 seconds, more than 25 assessments are made reciprocally by persons meeting and speaking with one another (2). Women, in my view and that of many others, have to be much more aware of nonverbal messages than men: both body language and clothing are often perceived very differently by men than by women (12). And then speech is significant, in that women tend to practice manners of speech that are rare among men and that can make men doubt the authenticity of what a woman is saying. Chief among these mannerisms is a questioning intonation and use of tag questions, such as ending a sentence with “what do you think.” With respect to clothing, I would suggest that women pay attention to such popular sociologists as Molloy (10) who found that the choice of clothing is significant: clothing considered to be fashionable or chic indicates to men that a woman is not serious about what she does. He and other more orthodox sociologists have found that men respond either more positively or negatively to the appearance of women than to the appearance of men.

The message for women is straightforward. Women have to pay attention to how they are perceived, and this is both verbal and nonverbal behavior. How women say something is as important as what they say. As others have noted (2,12), it is harder for women than for men to be recognized for their achievements. Women's work must not only be above average—some say even extraordinary (2)—but there must be visibility. Women must speak up at meetings, make their views known, make presentations, take part in professional organizations (2,13), etc. That is, women, even more than men, must promote themselves. Both men and women must let their superiors know what they are doing and the significance thereof.

Nevertheless, as Sandler and Hall (12) pointed out, many people believe that men and women are being treated equally. Most overt discrimination policies have ended. More women are in graduate school and on faculties, albeit at the lower levels. Women are

generally treated pleasantly by men and perhaps there are one or two highly placed women administrators in their institution. Thus, many people assume that, as the saying goes, women “have it made” in higher education. Although many women in APS have been and are in supportive departments, many others have not. Let me quote the perception of a woman in APS, who sums it up for many women in plant pathology.

One difficulty is dealing with a sense of isolation . . . because men on one hand will say ‘This is a great time to be a woman in the field, you're so lucky everyone's hiring women (as tokens or compensation for sex discrimination).’ On the other hand, women are not being accepted into the old boy network that certainly exists in our department, such as around the coffee pot. Men aren't making new women faculty welcome, perhaps not by any conscious exclusion but out of lack of familiarity. . . . It seems that women faculty have to gain these men's respect by working twice as hard in order to prove themselves. The sense of isolation then comes from feeling that men resent our position as the ‘new women’ in the field and impressions that men give us that we have it so good and are now so equal that we can't complain about feeling excluded. Our department routinely loses female graduate students who drop out due to lack of emotional and professional support. Most departures have been associated with conflicts with their major professor, all men. In the years that I have been here, no men have dropped out.

These comments reflect what Sandler and Hall (12) call “micro-inequities.” These are behaviors that are often so small that they go unnoticed when they occur.

The sense of isolation and inequitable treatment in academe is even treated as an appropriate topic for contemporary literature. A mystery novel set at Harvard University, considered by many sources as a bastion of male supremacy, depicts inequities so severe that a woman is driven to suicide (4). Although I don't know of any such occurrence in plant pathology, micro-inequities are prevalent (Women in Plant Pathology Survey, 1987). Thus, the perception that American women have never had it so good is a myth economically, socially, and in the workplace (6,8,12,15).

These perceptions by men and women in American society deal very much with the issue of commitment toward a career. A prevalent attitude among men, mentioned to me many times, is that women are just not committed to a career. It can be argued that men are committed to a career because American and most other societies give men no choice. The degree of commitment varies widely, as I believe everyone recognizes. For women, however, the commitment issue is more complex. Gallese (6) separates women into three broad groups. One group is those committed to a career. These women are highly committed, and very few. The second group is those ambivalent about a career. And the third group is those women for whom other factors, especially children, enable women to avoid hard decisions about a career. Whether one agrees or not, the point is that women have more options and that makes it more difficult for women who are very serious about their careers to be perceived as committed.

From my prejudiced view, the perceptions about commitment by men toward women's careers are both correct and incorrect. I'll use as a baseline entering graduate school. The appropriateness of this choice can be argued, but it is convenient. I believe that women starting graduate school already are quite highly motivated. But starting at the same gate as men, there are more hurdles for women to jump to reach the finish line, whether that is a Ph.D, a full professorship, or a management position. I've alluded to these hurdles above in facts, realities, and attitudes. In addition to hurdles imposed by American society and our profession, a large percentage of women impose upon themselves what *U.S. News and World Report* calls self-inflicted handicaps (1). These include behaviors that I have dealt with earlier. Also, women do not aim high enough; therefore both monetary compensation and greater respect are diminished (1). Women tend to be less aggressive than men about negotiating salaries and sharing salary information. Many women in all the professions, not just science but also in corporate America, (6) don't want to put the investment into a career that men do. As I have said, men have no choice. But, if a career is defined as a position sought to make a contribution to a

company, field of endeavor, or country, i.e., a contribution beyond oneself and one's immediate family, then women have to be more aware of how they are viewed and how they can function. Thus, considering the multiple hurdles that women have to overcome to reach the finish line, it is perhaps remarkable that so many of them have run the race successfully.

The other major perception of women in APS (Women in Plant Pathology Survey, 1987) is that salaries are viewed as inequitable at all levels. Without data, however, that is hard to substantiate, and I will address that later. However, if APS is like other professional societies, this is probably true (15).

A final perception is many women and some men believe that APS can and should do more to create jobs for members. This is not an APS function, nor probably could it be done. It may or may not be of some comfort to both men and women that the latest data by demographic analysts—those who project supply and demand into the future—do not agree at all (5). According to the National Science Foundation, information on the present supply and present demand is “not very good” and “projections into the future stink.” You cannot get any more graphic than that. Therefore, this society, like other professional societies, can only help prepare individuals to be ready to sit at the gaming table.

Recommendations

From the foregoing, it should be obvious there is much that can and should be done. I would like to offer several recommendations. None are radical; all have been discussed in the popular press as well as in other forums. Much of what I say is applicable to both men and women.

1. APS will list in its annual meeting registration materials that child-care services are available. Women have had the perception that such services are not available: they are. Women haven't asked. Some men would also use such a service as men occasionally will admit to wanting to spend more time with their families.
2. I have suggested to the new editor of *Phytopathology News* that a questions column be started. More women than men have questions about APS policies and procedures, e.g. getting on committees, about jobs, networking, etc. A cadre of knowledgeable people can answer these kinds of questions. Men would also find such a column of interest. The suggestion is to foster better communication among ourselves and break down some unnecessary barriers.
3. APS should regularly gather salary data by sex, age, and experience. In academic departments, data collection on salaries by rank and experience is done regularly. We should extend this data base for several reasons. It is said that one of the last taboos in America is to talk about money. But that is a fundamental issue of equity in the scientific marketplace. As much as we would like to believe that plant pathologists choose their profession because of complete devotion to challenging careers, there also has to be the fundamental reality that they can make a living. We cannot deal with the equity issue, perceived or real, without data. The data should be comprehensive, so that we have information from all sectors of employment, from extension, government, and private industry, as well as academe. If we have such data, men and women can see for themselves how well rewarded their efforts in plant pathology will be. Such data will also be helpful for demographic analysts of science, market analysts who provide and sell us goods and services, sustaining associates, and the APS Foundation. Recruitment into the profession might even be increased if we had such information.
4. Flexible work time needs to be used more by all sectors of employment. Both men and women would profit. Several studies show increases in productivity for both men and women where flexible hours are available. Such flexibility has been used successfully, e.g. at APS headquarters for over 10 years in giving this society one of the leanest and most

productive staffs in the science professions. If it were not for flextime (not labeled as such years ago), it would not have been possible for me to pursue my career.

5. Part-time and temporary job listings should be registered with the APS Placement Service. These jobs, as with some full-time jobs, would not necessarily be posted in *Phytopathology News* because of the cost of advertising. Many people avail themselves of our current listings, which exceed by far those that are published. Both men and women, including emerti, might find such a service useful. For example, the medical profession has honed the obtaining and administering of part-time jobs to a fine art.

Along with this recommendation is another to allow part-time employees and part-time students to pay student rates and thus retain APS membership.

6. Academic departments, in conjunction with APS, might explore the possibility of night courses or weekend study programs to accommodate men and women who are trying to finish degrees or further their knowledge. Continuing education is another area that has been discussed informally within the society on occasion, and that should be examined more rigorously. The advantages and disadvantages again could be discussed in *Phytopathology News* or other forums.
7. APS can do more in providing assistance in professional development through the Placement Committee. This Committee, with assistance from other committees and other organizations, should consider preparing written materials on such concrete issues as resume preparation, writing for publication, effective communication skills, stress management, grantsmanship, etc. Although workshops in these areas have been and are helpful, they tend to reach a limited audience at any given time. Even minimally providing listings of appropriate reference materials would be helpful to both men and women.
8. The Women in Plant Pathology Committee can compile a list of women with their present position and their areas of research. This information, already available through APS Headquarters, would be useful for potential networking and collaboration among women and should also be helpful to potential employers.

The next several recommendations are less concrete.

9. Both men and women need to offer more encouragement of one another to achieve their potential. Perhaps keeping an image in mind might help. I have chosen an image that seems appropriate to agriculture. It is based on a John Deere tractor advertisement. A single tractor is being painted different colors, by several painters. The caption reads “It's the cake that counts, not the color of the icing” (a little difficult to relate to tractors, in my view). But it makes the point that we need to be careful to look below the surface to assess one another.
10. Women, and even some men, need to become more knowledgeable about playing games. It is no accident that American and many other cultures pay a lot of attention to games—the attitudes carry over into all phases of professional life. Games, as defined in science (13) are “interpersonal strategies,” “a series of transactions and strategies which legitimately enhance progress in the many interpersonal relations which surround the act of doing good science.” It is “the ability and willingness to govern your actions by a set of rules, and to have the rules work in your favor.” Sindermann (13), in his book on games played by scientists, contends that many scientists don't pay adequate attention to “simple game rules” or even deny the existence of such rules. But, one needs to understand that the core of game playing requires starting from a base of scientific excellence, the real substance of science. Beyond this, game playing includes obvious moves that most people are familiar with: publishing; reviewing; presenting scientific papers, attending scientific meetings, including seeing and talking to people in your areas of interest; attending social functions at scientific meetings; and becoming involved in professional society functions through election to office, committee assignments, etc.

Let me continue with game playing in science. Benjamin Stein (in 6) talks about game playing as being necessary to reach the top rung of your profession. "A modicum of ability helps, but what really counts is persistence, luck and the willingness to take risks." (He adds that it also includes an enormous desire to become rich and famous; I maintain that those characteristics are not the norm for scientists). Further, he maintains that "all of these things can be controlled—even luck. Luck can be controlled only partially." That means that "you can't win if you're not at the table." The secret of being lucky is to give yourself enough chances to be lucky—"to roll the dice enough times to make your point, even if you don't roll seven on the first roll. You may crap out a number of times, and each time hurts. But you keep rolling." If you want to be a plant pathologist, you've got to go out there, and "speak before people who will fall asleep in front of your very eyes and will treat you as if you were a piece of furniture"; and if you publish, the editors may be "insulting and cruel," and so on. "While all those things are happening to you, you will be at the table, and you cannot win if you're not at the table. And eventually, if you have even a modicum of talent, you will make your point, even if . . . it is small at first."

There are, undoubtedly, other recommendations that can be made, but I think that implementation of these would help further not only the interests of women, but also of men, and that ultimately will benefit our profession.

Why should both men and women pay any attention to these remarks? Most importantly, making changes in one's behavior first necessitates being aware of it, which then affects the quality of our lives. That in turn will affect how we do science. We do not do science in a vacuum. I believe everyone would agree that we need the creativity, originality, and viewpoints of everyone interested in plant pathology to achieve even greater advances than those we have come to know. To be pragmatic, men in power need to foster bright and capable people so that they themselves advance and look good. Men in power who wish to be seen as resourceful and effective leaders and managers work very hard at developing the people they work with. Another reason to pay attention to inequities is the only data that the demographic analysts agree on absolutely is that, projecting to the year 2000 (5), there will be fewer white males in science. Therefore, even if our profession plateaus, and that may or may not occur, replacements will have to come from somewhere. The next largest personnel source is women. Other sciences are in the same position. Thus, to the extent we can show equity and that women's contributions to the profession are

valued and rewarded, we will benefit as a profession.

It is my fervent hope that this is a topic that will never have to be dealt with again. I have made these comments for men and women to chew on and digest—they may cause some discomfort. But, I believe that plant pathology and APS are doing a better job of using women's talents than many other professions and professional societies. We can do even better, however, because, to paraphrase a line from a popular radio show (Prairie Home Companion) that included skits about a town called Lake Wobegon, APS is a society where all the scientists are above average.

REFERENCES

1. Anonymous. 1986/1987. Why women execs stop before the top. U.S. News & World Rep. Dec. 29/Jan. 5. pp. 72-73.
2. Baile, S. 1987. Power communication skills (audiocassette). Career Track Publications, Boulder, CO.
3. Cole, J. R., and Zuckerman, H. 1987. Marriage, motherhood and research performance in science. *Scientific Am.* 256:119-125.
4. Cross, A. 1981. *Death in a Tenured Position*. Ballentine Books, New York. 165 pp.
5. Finkbeiner, A. K. 1987. Demographics or market forces? *Mosaic (Natl. Sci. Fdn.)* 18:10-17.
6. Gallese, L. R. 1985. *Women Like Us*. William Morrow, New York. 252 pp.
7. Henderson, J. L., and Cooper, B. E. 1987. The representation of women scientists in land-grant colleges of agriculture. *Natl. Assn. College & Teachers of Ag. J.* 31:14-17.
8. Hewlett, S. A. 1986. *A Lesser Life: The Myth of Women's Liberation in America*. William Morrow, New York. 256 pp.
9. Martin, J. 1986. Adults do not need to apologize for working. *Omaha Sunday World Herald*. Sept. 14. column 2-E.
10. Molloy, J. T. 1987. *Omaha Sunday World Herald*, May 10, p. 2-E, column 2.
11. Papanozzi, E. T. 1987. Formal networks for women professionals. *Hort. Sci.* 22:195-196.
12. Sandler, B. R., and Hall, R. M. 1986. *The campus climate revisited: Chilly for women faculty, administrators, and graduate students*. 28 pp. Association of American Colleges, Project on the Status and Education of Women, Washington, DC.
13. Sindermann, C. J. 1982. *Winning the Games Scientists Play*. Plenum Press, New York. 290 pp.
14. Stephens, C. T. 1982. American women in plant pathology. *Plant Disease* 66:95.
15. Vetter, B. M. 1987. Women's progress. *Mosaic (Natl. Sci. Fdn.)* 18:2-9.