

U.S. Office of Personnel Management  
Office of Merit Systems Oversight and Effectiveness  
Classification Appeals and ELSA Programs



Atlanta Oversight Division  
75 Spring Street, SW, Suite 972  
Atlanta, Georgia 30303-3109

**Classification Appeal Decision**  
**Under Section 5112 of Title 5, United States Code**

**Appellant:** [appellant's name]

**Agency classification:** Plant Physiologist  
GM-435-13

**Organization:** U. S. Department of Agriculture

**OPM decision:** Plant Physiologist  
GS-435-13  
(Agency to determine if GM  
designation is appropriate)

**OPM decision number:** C- 0435-13-01

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Kathy W. Day  
Classification Appeals Officer

Date: 12/1/98  
RD# 4351301.Atr

As provided in section 511.612 of title 5, Code of Federal Regulations, this decision constitutes a certificate that is mandatory and binding on all administrative, certifying, payroll, disbursing, and accounting officials of the government. The agency is responsible for reviewing its classification decisions for identical, similar, or related positions to ensure consistency with this decision. There is no right of further appeal. This decision is subject to discretionary review only under conditions and time limits specified in the Introduction to the Position Classification Standards, appendix 4, section G (address provided in appendix 4, section H).

**Decision sent to:**

[appellant's address]

[appellant's agency address]

Director, Office of Human  
Resource Management  
U. S. Department of Agriculture  
Washington, DC 20250

## **Introduction**

On September 2, 1998, the Atlanta Oversight Division, Office of Personnel Management (OPM), accepted a classification appeal for the position of Plant Physiologist, GM-435-13, [appellant's agency name] U. S. Department of Agriculture, [city and state]. The appellant requests that his position be upgraded to GS-14.

This appeal has been accepted and processed under section 5112(b) of title 5, United States Code (U.S.C.). This is the final administrative decision on the classification of the position subject to discretionary review only under the limited conditions and time outlined in part 511, subpart F, of title 5, Code of Federal Regulations.

## **General issues**

The appellant, supervisor and agency have certified the accuracy of the position description. However, the appellant states that his position description has changed considerably since his reassignment to his current organization. While his research is still centered on using techniques for the improvement of citrus performance to known problems, he is in the process of obtaining new research areas. In adjudicating classification appeals, 5 U.S.C. 5112 requires that positions be classified on the basis of current duties, responsibilities, and qualifications requirements. When the appellant receives new research assignments, his supervisor should coordinate with the personnel office to update his position description.

The appellant believes his work has significantly increased productivity in research findings and that alone should justify an upgrade of his position. The classification system is used to measure the overall grade level of work performed. No single factor is considered in isolation. All of the duties of the position are evaluated against all of the specific criteria contained in the appropriate OPM guide or standard. Factors (such as quantity of work) not contained in the applicable standard may not be considered in determining the correct classification of a position.

To help decide this appeal, an Atlanta Oversight Division representative conducted telephone audits of the appellant's position. The audits included interviews with the appellant, his immediate supervisor, the Laboratory Director, all of the references listed in the appellant's research case write-up who are familiar with various aspects of his research, and [Professor and Plant Pathologist name], University of Florida, [city and state]. In reaching our classification decision, we have reviewed the audit findings and all information of record furnished by the appellant and his agency, including the official position description.

## **Position information**

The appellant is assigned to position description number 1A3200.

The appellant functions as a Lead Scientist on research projects and has responsibility for the supervision of two biological laboratory technicians, a research associate, and other temporary personnel as assigned. Occasionally, he functions as an acting Research Leader. His current research

work involves developing molecular systems to detect and differentiate healthy trees from those with biotic and abiotic stress, developing analytical systems to detect specific physiological and biochemical changes which relate to important horticultural traits, and developing citrus plant-based systems which utilize mutagenesis and other techniques to develop specific plant traits. The results of his work should develop improved systems for assessing and identifying desired disease resistant traits; testing programs which can improve the efficiency of screening plant materials; developing varieties with specific horticultural trait augmentation; and new approaches to variety development.

The appellant works under the general supervision of the Research Leader who establishes broad objectives. The appellant develops an independent research program in concert with research unit objectives. Major changes in research goals and objectives require the consensus of the National Program Staff and the Research Leader. He receives no technical supervision in his area of expertise and is technically authoritative and responsible for analyzing, interpreting and communicating research findings. He has authority to represent the agency according to agency policies and guidelines and has fiscal responsibility for funds allocated by the Research Leader and those obtained from external sources. The appellant's manuscripts are reviewed by his peers for technical quality and by the Research Leader and Laboratory Director to assure protocol is followed. His work is reviewed for overall accomplishments.

### **Series determination**

The agency determined that the Plant Physiology Series, GS-435, best described the appellant's work. The appellant does not contest their determination, and we concur.

The GS-435 series covers positions involved in research and other scientific work pertaining to such vital plant functions as growth, nutrition, respiration, and reproduction that are essential to the life of the plant or its use. The appellant conducts research on citrus stress and bioregulation as related to citrus diseases and development. As such, his position is correctly placed in the Plant Physiology Series, GS-435.

### **Title determination**

The appellant's supervisory responsibilities do not meet the minimum criteria for coverage under the General Schedule Supervisory Guide (GSSG). The GSSG is used to grade General Schedule supervisory work and related managerial responsibilities that:

- require accomplishment of work through combined technical and administrative direction of others; and
- constitute a major duty occupying at least 25 percent of the position's time; and
- meet at least the lowest level of Factor 3, in the guide.

The appellant estimates that he spends approximately 8 hours a week performing supervisory duties which equates to about 20 percent of his time. His supervisory responsibilities do not occupy the required 25 percent of his time. Therefore, his position is excluded from coverage under the guide and no supervisory designation is included in the title.

The title *Plant Physiologist* is used for all nonsupervisory positions classified in the GS-435 series.

### **Standard determination**

Plant Physiology Series, GS-435, April 1996.  
Research Grade Evaluation Guide, January 1976.

### **Grade determination**

The appellant's position is evaluated by application of the Research Grade Evaluation Guide (RGEG) which is used across series lines to determine the grade levels of research positions. The RGEG is written in two parts. Part I of the RGEG is used in the grade level evaluation of positions at GS-11 through GS-15 that are engaged in basic or applied research in the sciences when the functions involve either (1) the personal performance, as the highest level function and for a substantial portion of the time, of professionally responsible research; or (2) the direct and personal leadership of and participation in the activities of a research team or organizational unit when the primary basis of selection for the position is competence and capability in the performance of research. Part I includes four factors which are considered and rated separately with the total point value then being converted to a grade level by use of the grade conversion chart provided in the RGEG.

Each factor is evaluated at one of five degree levels. Three of these levels (A, C, and E) are defined in the RGEG. An intermediate level (B or D) may be assigned when a position is evaluated between levels A and C or levels C and E, respectively.

#### Factor I, The research situation, or assignment:

This factor deals with the nature, scope and characteristics of current studies being undertaken by the incumbent. It is intended to reflect the situation or assignment in the current job rather than a summation of the employee's assignments over a long period of time. An ARS peer panel, which evaluated the appellant's position on May 15, 1998, rated this factor at Degree C. The appellant believes Degree E should be assigned.

At Degree C, the incumbent is responsible for formulating and conducting a systematic research attack on a problem area of considerable scope and complexity. The scope of the problem area is typically such that it must be approached through a series of complete and conceptually related research studies. These may be carried out personally by the incumbent, or by a team of which the incumbent is the leader. In terms of complexity, problems are typically difficult to define; require

unconventional or novel approaches; require sophisticated research technique; and/or present other features of more than average difficulty. Characteristically, research studies of this scope will result in a series of publishable contributions to knowledge which will: (1) answer important questions in the scientific field, account for previously unexplained phenomena, and/or open significant new avenues for further study; (2) represent an important contribution to the validation or modification of scientific theory or methodology relating to the topic area; (3) result in important changes in existing products, processes, techniques or practices; and/or (4) be definitive of a specific topic area.

The appellant states that his discovery of protein markers for disease diagnosis is the first of its kind in plant physiology and has led to numerous popularized articles, as well as a patent and several referenced articles. He believes that the difficulty of the problem, in addition to the significance of these findings supports Degree E.

The difficulty and complexity of the appellant's research is comparable to the characteristics described at Degree C. His work involves developing practical and reliable molecular systems to detect and differentiate healthy trees from those with biotic and abiotic stress, developing analytical systems to detect specific physiological and biochemical changes which relate to important horticultural traits, and developing citrus plant-based systems which utilize mutagenesis and other techniques to develop specific plant traits. There is little conclusive evidence of the nature of the citrus blight disease. The research is complex because citrus blight is not transmissible "in vitro" and requires 4 to 40 years under field conditions before the disease manifests itself as a decline in tree vigor. Transmission of the disease symptoms has not been possible in young trees. Literature on methods for diagnosing citrus blight describes techniques such as taking wood samples and water injection, which are useful when visual symptoms are present and trees are large enough. Because of these impediments, viable research approaches to citrus blight have been difficult. The appellant's most significant accomplishment resulted in a patent which involved pioneering research that led to an innovative approach to use protein markers for stress-related proteins in citrus blight. His research provides a useful tool to assay trees of any age or size, which can be used repeatedly without causing permanent damage to the plants. The significance of his findings is that it will allow growers and nurserymen to identify trees which have citrus blight at an early age, before visual symptoms occur, and will eventually delineate the causal nature of blight by allowing the study of the conditions which complement or retard the appearance of the protein(s). Overall, the appellant's work represents an important contribution that should lead toward new avenues of research to identify the causal agents or environmental conditions of citrus blight disease. The novel approach required, the sophisticated research, and the significance of the contribution are fully recognized and credited at Level C.

Three types of research situations are described at Degree E. The first situation ordinarily involves leadership of a team conducting applied research, and the situation necessarily involves team leadership. The appellant supervises two technicians who perform principally support work rather than independent research, and though he has been a leader on research projects, he does not permanently function as a team leader over other scientists. Therefore, his position cannot be credited with team leadership responsibility as it is meant in the first and third situations. The second Degree E situation (which does not include team leadership) involves responsibility for attacking basic

research problems which have been recognized as exceptionally difficult and unyielding to research analysis so that their solution would represent an advance of great significance.

Degree E is not met. The diagnosis of citrus blight is a difficult research problem. However, the appellant's research is not exceptionally difficult to the point that it has been unyielding to research analysis. There is a considerable amount of research available on the problem indicating that progress has been made in recent years. However, the research that is available has been of limited use in the diagnosis of the disease. Scientists have used visual observation, conducted experiments on rootstock, compared zinc content of trunk wood from affected and adjacent healthy appearing trees, performed syringe injection tests, transmitted or propagated blight by bud graft and reproduced the disease by reconstituting blight trees from root spouts and buds from diseased trees. Although these standard research efforts have failed to find a specific diagnosis for the disease or were terminated early because of freeze damage or a lack of funding, the methodology and techniques have been used or modified to open new areas of investigation. While the appellant's research involves using a high degree of originality to further develop and extend research strategies, that is not sufficient to credit Degree E. The latter part of the second Degree E situation requires that the research solution represent an advance of great significance. The appellant received a patent for his work because his assay outlines an innovative approach to locating proteins which may be used in detecting and differentiating healthy trees from those with biotic and abiotic stress. The protein separation and purification techniques used by the appellant were adapted from existing scientific techniques. There is no evidence that the appellant formulated or guided research on a problem recognized as a critical obstacle in an area of exceptional interest or that the solution to his research problem represents an advance of great significance. The term "great significance" indicates an advance significantly beyond that described at Degree C, which includes accounting for previously unexplained phenomena, opening significant new avenues for further study, or contributing in an important way to validating or modifying scientific theory. The appellant's research has not had the level or breadth of impact contemplated at Degree E.

This factor is evaluated at Degree C, for 6 points.

#### Factor II, Supervision received:

This factor deals with the supervisory guidance and control exercised over the position of the researcher, and also relates to the current job situation. It addresses three major elements: the manner in which the researcher receives assignments; the opportunity for procedural innovation, and the degree of acceptance of his final product. The ARS panel rated this factor at Degree C.

The appellant believes Degree D is warranted.

At Degree C, the researcher is typically assigned a broad problem area; in basic research he may not be given an "assignment," but may work with substantial freedom within an area of primary interest. In either event, he is allowed substantial freedom in identifying, defining and selecting specific problems for study being responsible for determining what appear to be the most fruitful investigations and approaches to the problem area. The researcher is responsible, with little or no

supervisory assistance, for formulating hypotheses, for developing and carrying out the plan of attack, for coping with novel and difficult problems requiring modification of standard methods, for analyzing and interpreting results, and for preparing comprehensive reports of findings. The supervisor is kept informed, through occasional discussions, of general plans and progress of the work. The supervisor approves plans which call for considerable investments of time or equipment and is responsible for final decisions concerning direction of work and changes in or discontinuance of important lines of investigation, particularly if they involve abandonment of what had been thought to be promising lines of investigation or of a substantial research investment. However, the researcher's professional judgment is relied on to such an extent that his recommendations are ordinarily followed. The supervisor attempts to create a climate conducive to the generation of ideas through staff discussions, seminars, etc. The researcher has full responsibility for decisions regarding use of equipment and other resources made available to him. His completed work and reports are reviewed principally to evaluate overall results.

Degree C is met. According to his position description, within the boundaries of selected research objectives, the appellant is a technical expert in his area. He operates with no technical supervision and determines the approach, methods and equipment that will be used in his chosen line of investigation, as approved by the National Program Staff and the Research Leader. The results of his work are reviewed by his peers for technical quality and by the Research Leader and Laboratory Director to assure protocol is followed. In addition, the appellant is delegated administrative control for the fiscal resources allocated to his research areas.

At Degree E, technical supervision is nominal and consultative in nature. The researcher works under broad administrative supervision, which is generally limited to approval of staffing, funds, and facilities, and broad agency policies. Within the framework of management objectives, priorities, and pressures for results, the researcher is expected to locate and explore the most fruitful areas of research in relation to the agency's program and needs and the state of the science involved; to take complete responsibility for formulating research plans and hypotheses and for carrying them through to completion; and to take full technical responsibility for interpreting findings, including interpreting their applicability to activities and interests of the agency, and their broader applicability to basic scientific methodology. Within the agency, these interpretations are accepted as technically authoritative and become the basis for necessary administrative action. They are, of course, subject to further tests and ultimate validation or modification by the scientific community and management decisions on the use of the results of research.

The supervision received by the appellant exceeds that described at Degree E. Although the appellant states that he works with very little supervision, very limited resources, has total control of his research program and has full responsibility for the implementation of the methods used in his research, he does not have full authority to develop research objectives. Research objectives are developed by higher level management and changes to research objectives or methodology require the consensus of the National Program Staff and Research Leader. The supervisor maintains overall fiscal responsibility for all funding activities within the organization. There is no evidence in the appeal record that the appellant has responsibility for the broader agency program implications of his



research (i.e., interpreting the applicability of his research to agency activities and interests) or that his interpretations have become the basis for administrative action within the agency. This level of authority is delegated to higher level management officials within the ARS.

This factor is evaluated at Degree C, for 6 points.

Factor III, Guidelines and originality:

This factor deals with the creative thinking, analyses, syntheses, evaluation, judgment, resourcefulness, and insight that characterize the work performed in the current job situation. It considers three important factors: (1) the original and independent creation, analysis, reasoning, evaluating, judging, and choosing between alternative methodologies; (2) the required interpretation of findings, translation of findings into a problem solution, and recording of these findings and interpretations in a form usable by others; as well as in application to specific end-products; and, (3) the impact of theories, principles, concepts, techniques, and approaches developed by the incumbent upon the scientific field of his research effort. The panel evaluated this factor at Degree C. The appellant believes Degree E should be credited.

At Degree C, in basic research, available guidelines and precedents (e.g., existing literature in the field) are limited in usefulness (i.e., are contradictory, contain critical gaps, are only partially related to the problem) or may be largely lacking because of the novel character of the work being done. A high degree of originality is required in defining problems which are very elusive and/or highly complex, in developing productive hypotheses for testing, in identifying significant problems for study in developing important new approaches, methods, and techniques, and in interpreting and relating the significance of results to other research findings. In applied research, this degree typically involves development and application of new techniques and original methods of attack to the solution of important problems presenting unprecedented or novel aspects. This includes application of a high degree of insight to isolate and define the critical features of the problems; and application of a high degree of originality and ingenuity in adapting, extending, and synthesizing existing theory, principles and techniques into original and non-obvious combinations or configurations, and in defining and conducting the specific research studies necessary for the solution of the problems.

Degree C is met. According to the appellant's position description, available literature provides little specific information on the development of practical diagnostic strategies for diseases such as citrus blight. Most publications have been contradictory and provided little conclusive evidence of the nature of the disease. The appellant's work requires creativity and ingenuity to develop research strategies, and a high degree of originality to develop and extend existing methods. Current literature describes methods which have been only applicable when visual symptoms are present and when trees are large enough to be tested for citrus blight. Therefore, the appellant must demonstrate originality in applying standard methodology and techniques to develop new approaches to the problems he is addressing.

At Degree E, the degree of originality is represented by: (1) Creative extension of existing theory or methodology or significant contribution to the development of new theory or methodology which is of such scope as to supplant or add new dimensions to a previous framework of theory or methodology (e.g., the new theory may represent a higher abstraction which includes relevant prior knowledge, at least as special cases of the new and which accounts for phenomena which may have been inconsistent with prior theory); or (2) Responsibility (particularly in applied research) for applying a very high degree of imagination and creativity in the solution of problems of marked importance (e.g., to the scientific field, to national defense, to health, to major segments of the national economy, etc.), for which there is an almost complete absence of applicable guidelines, pertinent literature, and methodology.

There is no evidence in the appeal record that the appellant's work has significantly contributed to the development of new theory or methodology. Therefore, the first situation described under Degree E is not applicable. The second situation under Degree E is also not met. Although the appellant states that his research has allowed other laboratories to use technology that he developed and his efforts are recognized as unique and substantial by other researchers, there is no evidence in the appeal record, or any indication from our contacts with scientists who are familiar with his work, that his research is of marked importance to the scientific field. Citrus blight is a major problem in Florida and contributes to an annual monetary loss to growers in Florida of \$35 to \$50 million, and is a problem in other citrus-growing countries such as Brazil, Venezuela, Argentina, South Africa and Australia. While the appellant's work adds to the pertinent literature and methodology available, the impact of his work does not have the magnitude depicted at this level.

This factor is evaluated at Degree C, for 6 points.

#### Factor IV. Qualifications and scientific contributions:

This factor is intended to focus on the total qualifications, professional standing and recognition and scientific contributions of the researcher, as these bear on the dimensions of the current research situation and work performance. It is given twice the weight of the other factors. The RGEG instructs that although the total history of accomplishment is to be considered under this factor, recent research is essential to full credit for past accomplishments.

The panel rated the appellant's significant accomplishments and professional standing and recognition at Degree B. The appellant believes that his scientific contributions should be credited at Degree E.

At Degree C, the researcher has demonstrated his ability as a mature, competent and productive worker. He will typically have authored one or more publications of considerable interest and value to his field (as evidenced by favorable reviews, by citation in the work of others, by presentations of papers to professional societies, etc.) and/or he will have contributed inventions, new designs or techniques which are of material significance in the solution of important applied problems. His contribution involves leadership of a productive research team, or leadership in the conception and formulation of productive research ideas (as evidenced by the fact that his ideas have been the basis

for productive studies by others, within or outside of his immediate organization), and/or highly productive (in terms of both quantity and quality) personal performance of research of such originality, soundness, and value as to have marked him as a significant contributor to his professional field. He is beginning to be sought out for consultation by colleagues who are, themselves, professionally mature researchers. Further evidence of his emerging recognition may be selection to serve in important committee assignments of professional groups. He is qualified to speak and deal responsibly concerning technical matters in his area of immediate specializations with researchers within and outside his own organization.

Degree C is met. The appellant's accomplishments in his area of expertise resulted in a patent that contributes to the process of identifying proteins which may eventually lead to a diagnosis for citrus blight. During our interview with scientists who are familiar with the appellant's work, we were told that the appellant was not allowed to publish or discuss his findings during the patent period for fear that it would jeopardize the patent. In their personal opinion, if he had been allowed to publish his work, it may have had a more significant impact. However, there was a consensus by the group of scientists contacted that his diagnostic assay will help to identify the causal agent in diagnosing the disease. His work is also a contributing factor in the work of researchers outside of his agency and he is beginning to be sought out by other researchers. For example, the appellant wrote several new manuscripts for publication. Although none have been published, one manuscript was referenced in the publication of another scientist at the University of Florida. Scientists at the university performing similar investigations have referenced the appellant's work in many of their publications. They have also communicated with him on the similarity of their findings. In addition, the supervisor stated that the appellant is consulted by scientists within his agency and validates other scientists' work relating to his area of expertise. According to his position description, the appellant is not only technically qualified to speak and deal responsibly concerning technical matters in his area of expertise, but he also interacts directly with federal and state agencies and industrial scientists in the area of citrus physiology and biochemistry through formal and informal consultation. The appellant states that he has been invited to speak to others on his research on protein separation techniques, especially capillary electrophoresis. However, the appeal record shows that the appellant's recent speaking invitations have been limited to two presentations with the Citrus Production Research Advisory Council and one presentation with a private research laboratory, which was canceled. Although the appellant lacks participation in professional meetings, his overall accomplishments have gained him recognition as a mature, competent and productive researcher.

At Degree E, the researcher has demonstrated outstanding attainment in a broad, or in a narrow but intensely specialized field, of research. He will typically have authored a number of important publications, of which at least some have had a major impact on advancing the field, or are accepted as definitive of important areas of it, and/or he will have contributed inventions, new designs or techniques which are regarded as major advances in basic or applied research, and which have opened the way for extensive further developments, or have solved problems of great importance to the scientific field, to the agency, or to the public. Contributions at this degree are of such importance and magnitude that they serve to move the art forward to the extent that other researchers must take note of the advance in order to keep abreast of developments in the field. He is sought as a

consultant by colleagues who are, themselves, specialists in his field; he speaks authoritatively regarding his field in contacts within and outside the Government. Invitations to address national professional organizations and recognition in the literature of his field through favorable reviews and numerous citations by others are further typical evidences of attainment. For purposes of comparison with private employment, the level of attainment contemplated at this degree may be considered to be roughly comparable to that of a full professor at a major university.

Degree E is not met. There is no evidence in the appeal record or any indication from our contacts with scientists that are familiar with the appellant's work that his contributions are regarded as major advances in applied research or that his work has solved problems of great importance to the scientific field, his agency or the public. The appellant states that he has received several invitations to speak to scientists within and outside of the department based on his research on protein separation techniques, especially capillary electrophoresis, and that he was the first laboratory scientist at the station to do molecular biology work which resulted in the funding of three postdoctoral positions. Although he believes this would have entitled him to a full professorship, the research evaluation case write-up indicates that he is an adjunct member of the Graduate Faculty at the University of Florida, a member of the Clinical Faculty of the University of Central Florida, and an Adjunct Associate Professor of the Department of Microbiology and Molecular Biology at the University of Florida. He has not gained professional stature and recognition as an national authoritative figure sought after by professional organizations nor is there any evidence that he has attained the rank of a full professor.

This factor is evaluated at Degree C, for 12 points.

SUMMARY		
Factor Level	Degree	Points
I	C	6
II	C	6
III	C	6
IV	C	12
Total		30

A total of 30 points falls within the range of GS-13, 26 to 32 points, according to the conversion table in the RGEF.

### Decision

The position is properly classified as *Plant Physiologist, GS-435-13*.