

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

San Francisco Oversight Division  
120 Howard Street, Room 760  
San Francisco, CA 94105-0001

**Classification Appeal Decision**  
**Under section 5112 of title 5, United States Code**

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

**Agency classification:** Plant Physiologist  
GS-435-12

**Organization:** Plant Protection Research Unit  
[name] Research Center  
Agricultural Research Service  
U.S. Department of Agriculture  
[location]

**OPM decision:** Plant Physiologist  
GS-435-12

**OPM decision number:** C-0435-12-01

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Carlos A. Torrico  
Classification Appeals Officer

July 23, 2001  
Date

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* (PCS's), appendix 4, section G (address provided in appendix 4, section H).

### **Decision sent to:**

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## **Introduction**

On August 12, 1999, the San Francisco Oversight Division accepted a position classification appeal from [appellant's name]. She requested that her position, currently classified as Plant Physiologist, GS-435-12, be classified at the GS-13 grade level. The appellant works in the Plant Protection Research Unit, [name] Research Center, Agricultural Research Service (ARS), U.S. Department of Agriculture, in [location]. We accepted and decided this appeal under the provisions of section 5112 of title 5, United States Code (U.S.C.).

## **General issues**

The appellant's rationale states that her position, evaluated by application of the Research Grade Evaluation Guide (RGEG), should be credited at Degree C for all four factors. The resultant total of 30 points would place her position in the GS-13 grade level range of 26-32 points. On June 6, 2000, the ARS research position evaluation committee reviewed the appellant's position. The panel evaluated her position at Degree B for all factors. The resultant total of 20 points retained her position in GS-12 grade level point range of 16-22 points.

In her comments on the ARS committee report, the appellant states that there is no evidence that the panel conducted an in-depth review of the case write-up or that her position was measured fully against the RGEG criteria. She took issue with the quality of the conclusions drawn by agency panels convened in 1995 and 1998, and critiqued the current panel's basis for assigning Degree B to each factor.

These statements raise procedural issues that must be addressed. The Office of Personnel Management is required by law to classify positions on the basis of their current duties, responsibilities, and qualification requirements by comparison to the criteria specified in the appropriate position classification standard (PCS) or guide (5 U.S.C. 5106, 5107, and 5112). The law does not authorize use of other methods or factors of evaluation, such as the appellant's critique of the quality of her agency's previous or current classification analysis. Our decision sets aside all previous agency decisions regarding the classification of the position in question.

The appellant's rationale relies on the description of work in the case write-up that has been certified as current and accurate. Classification appeal regulations permit OPM to investigate or audit a position, and decide an appeal on the basis of the actual duties and responsibilities assigned by management and performed by the employee. An OPM appeal decision grades a real operating position, and not simply the position description (PD) or other documentation. Therefore, this decision is based on the actual work assigned to and performed by the appellant.

To help decide this appeal, we conducted a telephone audit with the appellant on May 31, 2001, and telephone interviews on June 5 and 29 with her immediate supervisor, [name]. We interviewed ten other scientists knowledgeable of the appellant's work and of aflatoxin research, including scientists recommended by the appellant and her supervisor. In reaching our decision, we reviewed the audit findings and all information of record furnished by the appellant and her agency, including her official PD and work examples provided by the appellant at our request.

### **Position information**

The appellant occupies (PD number), classified on December 7, 1995, and certified by the appellant as current on June 12, 1999. The appellant's response to the agency's September 1, 1999, appeal administrative report included an unclassified PD certified as accurate by her acting supervisor on April 4, 1998. Most of the proposed PD was submitted as part of the appellant's research position evaluation case write-up certified as accurate and complete by the appellant on March 9, 2000, and by her supervisor on March 13, 2000. This information was reviewed in the ARS committee's analysis of the appellant's position. These documents provide additional details on the appellant's work and will be considered to the extent that they clarify the appellant's PD of record.

The appellant is a team member of the "Control and Prevention of Aflatoxin Formation in Tree Nuts" project which is a component of ARS National Program 108-Food Safety (mycotoxins). She performs independent research in the area of plant physiology, specifically how to prevent the growth and/or formation of any of the aflatoxins produced by *Aspergillus flavus* or *A. Parasiticus*. The purpose of her research is to use biological controls to interfere with and prevent aflatoxin formation in nut trees. She is responsible for: (1) coordinating population analysis of *A. Flavus* by genetic techniques, (2) searching for antagonistic microorganisms against *A. Flavus*, (3) investigating the potentials of saprophytic yeasts as biocontrol agents, (4) elucidating the mechanisms of biocontrol and the regulation of aflatoxin biosynthesis, (5) improving the efficacy of biocontrol microorganisms by genetic engineering, and (6) adapting and modifying current technologies for applying biocontrol agents in the field.

### **Series, title, and standard determination**

The agency allocated the appellant's position to the Plant Physiology Series, GS-435, which covers 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 agency titled the position as Plant Physiologist based on the titling instruction in the GS-435 PCS. The appellant agrees, and we concur.

The agency applied the RGEG for grading purposes. The appellant agrees, and we concur. The RGEG is used across series lines to determine the grade levels of research positions. Part I of the RGEG is used to evaluate positions at the GS-11 through GS-15 grade levels that are engaged in basic or applied research in the sciences, when the functions involve the personal performance, as the highest level function and for a substantial portion of the time, of professionally responsible research.

### **Grade determination**

Part I of the RGEG includes four factors that 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. Degree B or D may be assigned when a position is evaluated between levels A and C or levels C and E, respectively.

*Factor I: Research Situation or Assignment*

This factor deals with the nature, scope, and characteristics of current studies being undertaken by the researcher. It is intended to reflect the situation or assignment in the current job, rather than a summation of the researcher's assignments over a long period of time. The appellant states that Degree C is appropriate because she leads a team carrying out a series of research studies to define difficult problems and develop novel approaches to solving them. She says the rationale states that the area of biological control presents features of more than average difficulty and requires insights derived from an eclectic synthesis of knowledge garnered from diverse scientific disciplines. The appellant states that because of the inherent variability in living systems, the methodological parameters for this research are not well-defined, and she must generate innovative biological control approaches for the elimination of aflatoxin.

At Degree C, the incumbent is responsible for formulating and conducting a systematic research attack on a problem area of considerable scope and complexity. Typically the scope of the problem area is 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 that 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.

We find that the appellant's assignment clearly exceeds Degree A, where projects are of limited scope and require only fairly conventional techniques. Typical of Degree C, aflatoxin control is a problem area of considerable scope and complexity that is being pursued in a variety of crops. As at Degree C, the appellant's approach to the problem consists of a series of complete and related studies. Using a nor mutant identified and studied by other scientists, she also devised a visual laboratory bioassay to identify *A. Flavus* strains that produce aflatoxin and strains which do not. Based on identifying and evaluating orchard plant populations, the appellant isolated saprophytic yeast strains antagonistic to *A. Flavus*. She conducted studies on other compounds to determine whether they are also antagonistic to aflatoxin production, e.g., acetosyringone and aroma compounds.

Typical of Degree C, the appellant's exploration of saprophytic yeast to control *A. Flavus* is novel in that it has not been previously studied for that use. Her collaborative exploration of a previously yeast identified DNA sequence *A. Flavus* for retrotransposon-like characteristics provides another potential avenue for establishing a correlation between gene fingerprints and aflatoxin pathways. The appellant's development of a nor mutant visual bioassay to identify aflatoxin producing strains of *A. Flavus* also reflects the appellant's use of sophisticated research techniques in carrying out her studies.

As at Degree C, the appellant's current assignment should produce a series of publishable contributions to knowledge, e.g., inhibitory effect of acetosyringone on aflatoxin biosynthetic genes, inhibition of aflatoxin biosynthesis in *A. Flavus* by phenolic signal molecules, and interactions of saprophytic yeasts with a nor mutant of *A. Flavus*. The studies should answer questions on whether aflatoxin production in tree nuts can be controlled by benign biocontrol agents. They have the potential to open additional avenues of research into understanding how aflatoxin is produced by certain strains of fungi but not by others. Based on our review, the position meets the threshold for and is credited at Degree C (6 points).

*Factor II: Supervision Received*

This factor deals with the supervisory guidance and control exercised over the researcher in the current job situation. The ARS peer panel rated this factor at Degree B. The appellant believes that her position should be rated at Degree C. She states that she is assigned a broad problem area based on funding decisions made by the ARS National Program Staff. She says that she is expected, with little or no technical supervision from the Research Leader, to carry out her own uniquely designed plan of attack on the problem. The appellant cites her PD as supporting the assignment of Degree C. The PD states that the appellant decides on specific research approaches. Discussions with her supervisor are consultative in nature. Any broad changes in objectives and new approaches that require the expenditure of substantial funding or additional personnel must be approved by the supervisor.

At Degree C in basic research, the scientist has substantial freedom to identify, define, and select 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 the progress of the work. The supervisor approves plans that 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. The researcher has full responsibility for decisions regarding the use of equipment and other resources, and completed work and reports are reviewed principally to evaluate overall results.

The appellant's level of supervision meets Degree C in the manner in which she receives her work assignments. The record shows that the appellant was assigned the broad problem area of biocontrol of aflatoxin production as required at Degree C. She developed a phased approach to the problem area by isolating yeasts, bacteria and fungi from botanical orchard materials; identified microbial isolates; and developed screening protocols to examine the interaction of microbial isolates with *A. Flavus* to identify effective antagonistic microorganisms to aflatoxin producing fungi. As at that level, within the broad objectives of the laboratory's mission, the appellant is free to select her specific areas of research, to determine the methodologies to be employed, and to interpret and report the results. Typical of Degree C, she is responsible for coping with a difficult biocontrol problem requiring modification of standard methods, e.g.,

using saprophytic yeasts to displace aflatoxin producing *A. Flavus*, interpreting the results, and reporting findings in technical meetings and publications. The appellant's supervisor exercises the controls typical of Degree C concerning the direction of work and the review of work and reports. Based on our review, the position meets the threshold for and is credited at Degree C (6 points).

### *Factor III: Guidelines and Originality*

This factor deals with the creative thinking, analyses, syntheses, judgment, resourcefulness, and insight that characterize the work performed by the researcher in the current job situation. The ARS peer panel rated this factor at Degree B. The appellant states that her position meets Degree C because the problem area of aflatoxin formation poses major research difficulties. Developing means of biological control of aflatoxin formation requires originality because of the absence of applicable guidelines. The techniques to develop means of biological control are part of a complex arena with few precedents. She cites her ingenuity in developing a test to identify candidate yeast that have the potential to control aflatoxin and an improved technology for producing somatic hybrids that is potentially useful for germplasm enhancement and crop improvement. The appellant describes these as evidence of her applying a high degree of originality and ingenuity.

As in the previous two factors, this factor deals with work performed in the current job situation. Therefore, we may not consider the appellant's citation of earlier work in evaluating this factor. The RGEF instructs that in assessing the impact of creativity found in the position, three considerations are important. The first involves the requirement for original and independent creation, analysis, reasoning, evaluating, judging, and choosing between alternative methodologies. The second is 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. The third consideration is the impact of theories, principles, concepts, techniques, and approaches developed by the scientist upon the scientific field of the research effort.

At Degree A, existing theory and methods are generally applicable to most parts of the problem, although available material may be inconsistent or partially unconfirmed. Originality is required in developing a complete and adequate research design for the specific problem by selecting and adapting available methods and techniques. This may involve applying highly complex, but established, experimental techniques, or some modification of details of technique or method. This degree involves only a limited amount of innovation or modification of procedures and techniques.

At Degree C in basic research, available guidelines and precedents are limited in usefulness or may be largely lacking because of the novel character of the work being done. A high degree of originality is required in defining the 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, work typically involves developing and applying new techniques and original methods of attack to the solution of

important problems presenting unprecedented or novel aspects. This includes applying a high degree of insight to isolate and define the critical features of the problem; and applying a high degree of originality and ingenuity in adapting, extending, and synthesizing existing theory, principles and techniques into original and non-obvious combinations, and in defining and conducting specific studies necessary to solve the problems dealt with.

The appellant's research has involved developing a biocontrol technique for displacing *A. Flavus*, which requires significant adaptation and refinement for application to tree nuts. In this way, the work exceeds Degree A, where only limited modification of procedures and techniques is to be expected. There is no question that her work requires a high degree of originality in problem definition and research design. The scientists with whom we consulted mentioned that the appellant may be the only researcher actively pursuing this particular line of inquiry. However, Degree C is not fully met in that this technique is not unprecedented. Yeast has been used as biocontrol agent for citrus fruit, albeit with mixed results. Developing an improved bioassay screening technique, surfacing potential genetic markers for aflatoxin production, and exploring the impact of aroma and other compounds on *A. Flavus* contribute to the appellant's overall biocontrol efforts. While her approach is novel, the appellant has not yet demonstrated that her research is advancing significantly beyond her original hypotheses and methodology through publication of significant results; i.e., field test results of yeast biocontrol of *A. Flavus*. Her laboratory work is only now entering field tests. She recently obtained a small one-year grant to test the inhibitory affects of two yeasts on *A. Flavus* production on pistachio male flowers. Thus we cannot conclude that she has interpreted and related the significance of the results of her biocontrol technique, still in the preliminary testing phase, to other research findings found at Degree C.

Degree C is the first degree level at which impact on the scientific field becomes a consideration, and in the appellant's case there is no indication that this is yet a defining characteristic of her current work. In scientific research, impact is a product of the publication process, wherein findings are presented to the scientific community for information, validation, and ultimately for acceptance and incorporation in the work of other researchers. Although the scientists with whom we spoke were aware of the appellant's aflatoxin work, and she has collaborated with several scientists in exploring her own area of research, there was no indication that it has yet had any appreciable influence on the work of others as contemplated at Degree C. Because Degree C is not fully met, we assign Degree B (4 points).

#### *Factor IV: Qualifications and Scientific Contributions*

This factor measures the total qualifications, professional standing and recognition, and scientific contributions of the researcher, insofar as these bear on the dimensions of the current work 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 ARS peer panel assigned Degree B.

The appellant states that her position meets Degree C based on her stature. She published four papers in the past few years. She was preparing several abstracts and two manuscripts for



submission to journals for publication at the time of her appeal. They subsequently were published or have been accepted for publication. The appellant says that she has authored or co-authored about 30 research papers and many abstracts. She cites her presentations at meetings, including the General Meeting of the American Society of Microbiology in 1997 in Miami, Florida, the 7<sup>th</sup> International Congress of Plant Pathology in August 1998 and the III International Symposium on Pistachios and Almonds in May 2001 in Zaragoza, Spain, as evidence of her recognition and stature. The appellant claims that her selection as President of the Chinese American Microbiology Society, reviewing National Science Foundation and USDA Competitive Grant proposals since 1982, and similar activities show that she serves on important committee assignments of professional groups. The record contains additional examples supplied by the appellant that she believes support the crediting of Degree C peer recognition. She cites a patent that she recently received on vesicular-arbuscular mycorrhizal (VAM) fungi propagation as evidence of a novel approach typical of Degree C. The appellant cites her field training students in research techniques and using them in her research efforts show leadership and recognition typical of Degree C.

At Degree A, the researcher performs independent research and has planned and executed one or a few research studies with some guidance as to objectives and occasional consultations during the progress of the studies. The work may be expected to result, or has resulted, in co-authorship, in a secondary role, of one or more major papers or reports of considerable interest to the scientific field, or in primary authorship of one or more minor papers or reports which will serve, or have served, to fill narrow blanks in an existing framework of knowledge, to corroborate existing theory, or to report findings of limited scope.

At Degree C, the researcher has demonstrated his or her ability as a mature, competent, and productive worker and will typically have authored one or more publications of considerable interest and value to the field (as evidenced by favorable reviews, by citation in the work of others, by presentations of papers to professional societies, etc.), and/or will have contributed inventions, new designs, or techniques which are of material significance in the solution of important applied problems. Contributions at this level derive from 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 field, as evidenced by the fact that the ideas have been the basis for productive studies by others within or outside the immediate organization. Researchers at this level are beginning to be sought out for consultation by colleagues who are professionally mature researchers. The RGEG speaks of "emerging recognition" in the field at Degree C.

Although the appellant's position exceeds Degree A, it does not fully meet Degree C. The appellant has demonstrated her competence as a researcher and aspects of "emerging recognition" in the field through her presentations at national and international symposia. However, an equally important aspect of Degree C is the issue of productivity and contributions. Although others have cited several of the appellant's peer reviewed publications with some frequency, e.g., 12 or more times, the citations cover work published in or before 1990. The largest number of citations cover work published between 1972 and 1982. The patent cited by the appellant was granted for her VAM work and which is not current work within the meaning of the RGEG. While her peer reviewed publications have increased over the past few years, the

record shows substantial gaps in productivity. Although the appellant's presentations and requests for copies of her publications indicate some degree of interest on the part of her peers, they are not of the level expected at Degree C as discussed previously. As described by the appellant, the Chinese American Microbiology Society functions primarily as a networking group. Holding office in such a group, reviewing National Science Foundation and USDA Competitive Grant proposals since 1982, and similar activities are not equivalent to important committee assignments of professional groups contemplated at Degree C, e.g., carrying out a significant program role for a major scientific society.

While the appellant has collaborated with others in several of her aflatoxin projects, e.g., the study of AfRTL, a retrotransposon-like element in *A. Flavus*, the record does not show that she is routinely sought out by others in her current field of aflotoxin research to the extent envisioned at Degree C. The record also does not show that she has recently conceived, formulated, and published research ideas that have been the sole or primary basis for formal, funded research studies by others found at Degree C. Instructing students in field research techniques and using students in the research process fall short of the scope of research leadership contemplated at Degree C. Because Degree C is not fully met, we assign Degree B (8 points).

### *Summary*

A total of 24 points falls in the gap between the GS-12 (16-22 points) and GS-13 (26-32 points) grade level ranges. In borderline situations, the position may be placed in the higher or lower graded based on aspects of the position that may have not been fully considered in arriving at the point values, and consideration of best alignment with other properly classified positions. All strengthening aspects of the appellant's work were fully considered in our analysis of the four factors. Thus, alignment is not a consideration. Therefore, the final grade is GS-12.

### **Decision**

The appellant's position is properly classified as Plant Physiologist, GS-435-12.