The pesticide paradox: How to control insect pests and protect the environment.

Two veteran scientists recall concern over chemical effects

Neither George J. Wallace nor Ray L. Janes will be among the featured guests or speakers when Michigan State University officially dedicates its new Pesticide Center this week. Yet both men — in different roles — have long been closely concerned with the problem of pest control.

U-C provost speaks

Paul Salzman, provost and professor of biology at the University of California at San Diego, will speak Friday at 4 p.m. in the Erickson Kiva. His topic: "Pesticides, Protein, Protests and Pot." His speech is cosponsored by the Honors College and the Department of Botany and Plant Pathology.

The McKee Report proposes more student representation

Some three months after receiving its charge, the New Committee on Student Participation in Academic Government, chaired by James B. McKee, has submitted its report to the Standing Committee of the Faculty for placement on the agenda for the Academic Council meeting March 3. The report, reprinted in this issue, differs from the original (Massey) report in several respects.

FACULTY MEMBERS of the New Committee on Student Participation in Academic Government, all members of the Academic Council, are McKee, professor of sociology and in James Madison College; Sam S. Bakker, professor of English; Erwin Bettiinghaus, assistant dean of communication arts and professor of communication; Edward A. Carlin, dean of University College; Michael J. Harrison, professor of physics; and John J. Masterson, associate professor of mathematics.

Student members of the committee, appointed by former President Walter Adams to represent undergraduate, graduate and black students, are Gina Schaeck, Harry Chancy, Michael Freed and Charles McMillan.

Introduction

In November, 1969, the Academic Council, after extended debate, recommended that the New Committee on Student Participation in Academic Government, submitted to the Council in May, 1969, be referred to a faculty-student committee for revision.

Faculty members were to be chosen from the Council by the President, upon recommendation from the Academic Council; student members were to be chosen by the President upon recommendation from student members of the Academic Council.

The following report represents the work of this New Committee on Student Participation in Academic Government since its meeting in November, 1969.

This Committee began with the conviction that the discussions in Academic Council clearly indicated substantial agreement that students should be involved in the academic decision-making process of the University. The nature of this involvement, the means of students to be involved and the methods to be used to select those means were issues on which the New Committee detected considerable differences of opinion.

Insofar as possible, this report attempts to suggest resolution of these differences. It does not always attempt to be either comprehensive or as specific as the original report. Rather, it was an attempt to suggest a framework for the involvement of students in academic government which would allow the process to be taken immediately. Beyond that, however, we cannot state that the students should receive education and training in the academic government system of the University; only the students themselves can make recommendations in five areas: (1) the involvement of students within the several departments, colleges, centers and institutes of the University; (2) the involvement of students within the Academic Council; (3) the involvement of students on various standing committees of the Academic Council; (4) the provision for specific minority student representation in the academic government; and (5) the establishment of a new faculty-Student Committee on Academic Government.

In this report, we are not attempting to recommend any constitutional changes. We are not attempting to make recommendations regarding student participation on the Graduate Council. Those recommendations, by motion of the Academic Council, were made separately by the Graduate Council.

We should first note that our report does not make specific changes in the Bylaws of the Faculty designed to accomplish the recommendation proposed by the Faculty Committee on Student Participation in Academic Government. In the feeling of the Committee that following adoption of the report by the Academic Council on the present report, that the Council should authorize the Standing Committee of the Faculty to establish a small committee, including the secretary of the faculty, to draft all appropriate changes which will be necessary to accomplish whatever actions are taken by the Academic Council.

Part I

Student Participation in Academic Government Within the Several Departments, Colleges, Centers and Institutes

Shortly after its formation, the New Committee on Academic Government conducted a survey of all departments, colleges, centers and institutes to determine the size and composition of the Council and directorates of institutes. In addition, a general request for information about the extent of student involvement was issued by the Committee.

The one response we were able to receive was from the mathematics department. We wanted to find out how students were currently being involved in the academic decision-making process at these institutions. We also wanted to collect opinions from appropriate sources about how students should be involved.

The response to our request has been both positive and negative. Without attempting a formal statistical study for the Council, we are only able to make broad generalizations about student involvement on the departmental and college levels.

Some departments have students on all standing committees. Most departments and colleges have developed some way of formally involving students to some extent in decision making. There are a few, and only a few, departments which have not involved students in any way in their decision-making processes.

Some units of the University have developed completely parallel structures, while others have completely integrated structures with approximately equal numbers of students and faculty members.

Some student representatives serve in their departments and colleges through election by other students. Others often are selected by faculty nominations, while still others serve as a result of their having filled positions indicating their interest.

One group is that only those students who are majors within the department, while others also make an attempt to involve

(Continued on page 4)
students who are not necessarily majors in the particular department. Most units have, to date, avoided such faculty-student conflict by committee work, while a smaller number have made provisions for graduate and undergraduate students. The University of Michigan State there are examples of almost every possible arrangement, and the members of the committee deliberately avoided making decisions that would involve students in the academic decision-making process at the department and college level.

The variety of these approaches being developed at Michigan State suggests that it would be wise to insist on now on any faculty-student conflict that would be a consequence of these arrangements, departments, colleges, and committees.

However, as a result of the information obtained from previous meetings and from the committee deliberations, we would like to indicate our recommendations in three aspects: (A) the setting up of committees and (B) the selection of students for membership on those committees.

1. Integrated committee structures seem to be most frequent throughout the University for reasons stated elsewhere, we believe this to be preferable to parallel committee structures.

2. We consider that the selection of one student for a committee on which there may be, for example, six faculty members is clearly tokenism, and we would argue for more parallelism in the appointments.

3. Our survey indicated that far more attention is being paid to undergraduate students than to graduate students, and departments and colleges include graduate students in the selection of committee members in the units involved.

We have also noted that all developments reported to us are to be addressed to the faculty, not reflected in the bylaws. It is apparent, however, we strongly suggest that such development should be addressed to the student body.

"... students and faculty should come to decision making regarding mutual concerns ..."

E. Recommendations for those committees

We strongly advocate that student members of committees be selected by their peers, although we recognize that it may be a working in a few units.

We recommend that all students associated with an academic unit be involved in the procedures for student participation in the governance of that unit.

We strongly believe that students selected to represent undergraduate students on an academic unit should be chosen from a broad cross-section of students; we strongly suggest that such selection be made by their peers.

It may indeed be the case that a single student, or even 12, will never fit all departments or colleges; and that the bylaws of such an academic unit should be chosen from a broad cross-section of students; and that the bylaws of such an academic unit

The three recommendations proposed below, thus, are designed to be a beginning, a beginning which will issue that students are involved, where appropriate, within the "academic centers and activities of the University."

The recommendations include reporting procedures to a proposed new Faculty Senate. The "new Faculty Senate" would be the body that would facilitate the formation of the new committee as the device to handle requests from the students in the academic decisions-making process, and to be involved in making decisions in this area.

Recommendation 1. Each academic department or college should have an elected student representative who would develop methods of involving its students, both undergraduate and graduate, and faculty members in the academic decision-making process. At least one of the students on the committee should be a representative of the student council.

Recommendation 2. Faculty-student conflicts are commonly resolved by the committees. However, we seem to advise first to consider the possibility of a joint committee.

1. Completely parallel faculty and student governing boards. This system at first seemed to be the most obvious and, if the student and faculty members were in complete agreement, seems to reflect best the spirit of accountability. However, the system was found to be unacceptable at the University of Michigan State.

Our Committee rejects this model for the following reasons: (a) Many departments and colleges have already set up committees composed of faculty and students, and to adopt such a plan would destroy such programs as has been made to integrate students and faculty into one academic body; (b) This was on the possibility of a joint committee: the faculty committee. There would be college advisory committees appointed by the faculty committees. There would be student committee, and an academic student

In a completely parallel system, there would be some parallel board committees, and those similar in nature to the existing faculty and student committee. The student committee of the University would generate reports on the same subjects as the faculty committee. It would have the same power to initiate reports to the student council and the student body, and would have the same standing as the President and the Board of Trustees.

In any event, the committee felt that even the choice of a parallel broad committee of the student council should be made by the student body. Further, the committee felt that the faculty committee should be made by the student council. The student council should make the decision on the faculty committee.

For these central reasons, this committee voted to reject the "parallel board" model. We strongly urge that the student council be elected by their peers, but we realize that the student council is not always able to make such a decision.

Recommendation 3. There shall be an elected undergraduate student council at each of the 13 colleges whose primary educational task is the education of the undergraduate student.

Recommendation 4. There shall be an elected undergraduate student council at each of the 13 colleges whose primary educational task is the education of the undergraduate student.

Recommendation 5. The academic decision-making process to which these committees are central is as follows: the undergraduate student council is asked to consider. The University is not a voting member of the Academic Council; the Academic Council is asked to consider. The University is not a voting member of the Academic Council.

The reason the essence of the function of the academic decision-making process is to be handled by the undergraduate student council. The University is not a voting member of the Academic Council; the Academic Council is asked to consider. The University is not a voting member of the Academic Council.

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participate in academic government

student voice and vote. One graduate student member for the University Curriculum Committee is proposed at the request of COGS.

Recommendation 9. The University Curriculum Committee on Honors Programs shall have its basic subcommittees as follows:

a. The two undergraduates shall be members of the University Senate faculty. These two undergraduate students shall be members of the Undergraduate Senate faculty. The two students in the deliberations of the Committee representing the various colleges primarily concerned shall have three undergraduate and one graduate student voice and vote. That the Academic Governance Report to eliminate insensitive to the current ethos not to with the responsibility for student conduct as developed and proposed student voice and vote. In light of today's realities, our

... concerns peculiar to faculty should be considered by faculty alone ... and "concerns peculiar to students should be considered by students alone."

function of the Committee is less apparent. Accordingly, we make the following recommendations:

Recommendation 12. The University Faculty Tenure Committee shall report to the Academic Governance Committee on its findings and determination concerning the inclusion of faculty members in the Standing Committees.

Recommendation 13. The University Business Affairs Committee shall have three undergraduates and one graduate student.

The University Faculty Tenure Committee has the function of reviewing student membership on the Business Affairs Committee. During the past academic year, a Board of Trustees about the responsibilities of that Committee is pending. It is recognized that the Committee's Board's ultimate decision on the subject is suggested by the recent change in the determination of student participation.

Recommendation 14. The University Faculty Tenure Committee shall have three undergraduates.

The University Faculty Tenure Committee, presumes the establishment of a Committee on Academic Freedom and responsible for the impartial evaluation of academic freedom, the students' organizations and the Standing Committees. The pattern of the University Curriculum Committee of using faculty students to participate in the development of the standing committees and of making the student members of the Standing Committees. The pattern of the University Curriculum Committee of using faculty students to participate in the development of the standing committees and of making the student members of the Standing Committees. The pattern of the University Curriculum Committee of using faculty students to participate in the development of the standing committees and of making the student members of the Standing Committees.

Recommendation 15. Either three or six standing committees shall be appointed to the standing committees. The pattern of the University Curriculum Committee of using faculty students to participate in the development of the standing committees and of making the student members of the Standing Committees. The pattern of the University Curriculum Committee of using faculty students to participate in the development of the standing committees and of making the student members of the Standing Committees.

Recommendation 16. Initially the 13 Standing Committees shall be represented on the Standing Committees. In the event that one student is added to the Student Senate, he shall be added to the appropriate area for the purpose of the Standing Committees.

Recommendation 17. The University Faculty Tenure Committee shall have a student member of the Academic Governance Committee. The purpose of the Standing Committees is to provide specific minority representation on these committees.

Recommendation 18. There shall be an additional student in each of the following standing committees.

Recommendation 19. There shall be 10 notes on the Academic Council in order to provide for specific minority representation.

Recommendation 20. There shall be three minor notes on the Academic Council, including the University Library Committee, the University Senate Committee on Honors Programs, and the University Curriculum Committee on Academic Freedom. These notes will be added to the Faculty Tenure Committee and the University Faculty Tenure Committee on Academic Freedom in order to provide for specific minority representation.

Recommendation 21. There shall be an additional minority voice on the Student University Senate, in order to provide for specific minority representation.

Recommendation 22. There shall be five standing committees on the Academic Governance in order to provide for specific minority representation.

Recommendation 23. While there may be an additional minority voice on the Academic Council in order to provide for specific minority representation.

Recommendation 24. Undergraduate and graduate students in the respective areas shall be charged with the responsibility for student involvement in the respective areas. In addition, five faculty members shall be selected by the Committee on Academic Freedom to provide for specific minority representation.

Recommendation 27. The University Faculty Tenure Committee shall be charged with the responsibility for student involvement in the respective areas. In addition, five faculty members shall be selected by the Committee on Academic Freedom to provide for specific minority representation.

One would have to extremely disturbing, the present status of Academic Governance by the Academic Council. As stated earlier, we believe that the Faculty Affairs Committee, composed of five members of the faculty, the Academic Council, and the Faculty Affairs Committee. The Academic Council's investigations indicate. Specifically, this Committee is also charged with the responsibility for providing the Academic Council with the responsibility for making recommendations to the Academic Council for what changes in the Academic Council's Committee on Academic Freedom.

The recommendations set forth are not comprehensive problems of the rapidly changing social system and certainly no such plan is made for the Committee on Academic Freedom.

No committee is likely to offer a panacea for complex problems of the rapidly changing social system and certainly no such plan is made for the Committee on Academic Freedom.

In this context, it appears prudent to establish some agency that would be charged with the responsibility for setting standards. It is difficult, perhaps impossible, task of setting standards is one of education and the formulation of the model that might be accomplished in rational fashion. It would seem that the likelihood of the precipitate actions under conditions of high tension would be improved.

Recommendation 31. The University Curriculum Committee shall have two major charges under the bylaws: (1) to propose changes in the regulations, but such regulations must be reported to the Academic Governance Committee. The Committee on Academic Freedom, in light of today's realities, our
Pesticide Center... 

(Continued from page 1)

aware of this paradox. In one of the first efforts to reduce the chances of over-application of fertilizers, they determined that the use of less fertilizer allows fruit growers to make exact applications of fertilizers. Before leaf analysis, most plantings were fertilized by the "shot gun" method which often meant over-application.

AWAKENED PUBLIC interest and government concern made possible the formation of the interdisciplinary pest control research program in 1964. As a result, scientists from 17 departments are now concerned with controlling pests and diseases by using every conceivable technique to bring pest populations into reasonable bounds.

** NEW INTEGRATED approaches to pest control have been enthusiastically adopted by growers without the danger of contamination from insects.

** veteran scientists.

The north campus. In 1957, Mehner counted only a few pairs and just one laboratory in the agricultural chemistry department. Replaced those species that feed on the north campus. In 1957, Mehner may enroll, and those already in the agricultural chemistry department.

"I admit I was scared," Wallace says today. "Everyone told me I was wrong. I had said there was something wrong the birds before we got the results from the analyses." These results supported his contention, and so further efforts were made to minimize effects of DDT despite a washout of the drug on the robins. In 1962, the crop was washed down on the campus. Much of the evidence Wallace gathered was cited by the late Rachel Carson in her best-selling book, "Silent Spring.

Wallace says that effects of the chemical are still evident among the birds. Omnipresent species, such as starlings, grackles and sparrows, have replaced those species that feed primarily on robins. "I think this change in species composition is irreversible," Wallace says. "But I won't live long enough to ever know."

JANES, professor of entomology and extension entomologist, arrived at Michigan State in 1946, about the time that chemists, particularly other chemists, were introducing hydrocarbons. He recalls waging a long struggle, not to ban the chemicals, but to regulate their use.

To try controlling the use of DDT was "a real problem," he says, "because the public was so enthusiastic about its effectiveness." The public climate in the early 50's, Janes says, would not have permitted abolition of DDT.

From about 1946 to 1950, there were no guidelines on DDT use, he says, and many users were led to attempt perfect control of insects, which was "both costly and unfortunately seldom attained."

"These efforts used the application of insectsicides in and many cases increased the dosage rates of the chemicals," Janes says. "It is certain that on chemical dosage rates and tolerance levels were slow in coming, he says, and even when recommendations were developed, use of DDT and other chemicals spread because "everyone became an expert on pest control." Janes points out that as early as 1948 MSU scientists warned about possible hazards of DDT to cattle and poultry, and warned about the dangers. He says that as early as 1948 MSU scientists warned about possible hazards of DDT to cattle and poultry, and warned about the dangers.

"Between 1949 and 1969, University entomologists suggested that DDT be discontinued in six different instances where it presented possible hazard to the environment. Michigan last year banned all use of DDT.

Many of our really important insects in control in insecticide has resulted from a better understanding of insect life histories," Janes explains. "We have made a lot of time learning how to control insects."

"The problems of pest control environment imagination must be fully realized as a part of total food production, public health and public domain problems," Janes says, "not merely as a part of isolated ecological conditions."

** Picture-taking lags

Don't wait until the last minute to be photographed for the new staff and employee identification cards. That's the plea from officials at the office of Leaves: America, Inc., a subsidiary of John F. Porch at which plans will be made for pictures for the cards. A few moments at the last minute could end up in a picture taken of the card's holder.

"Don't wait until the last minute to be photographed for the new staff and employee identification cards. That's the plea from officials at the office of Leaves: America, Inc., a subsidiary of John F. Porch at which plans will be made for pictures for the cards. A few moments at the last minute could end up in a picture taken of the card's holder."

8 p.m. (FM) ART DECO. "Three Puny Opera.

4:35 p.m. (FM) OPERA FROM RADIO ITALIANA, "Pia Cherubina."

10:30 p.m. (FM) MUSIC OF TODAY."

MSU Faculty News
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Editorial Office: 296-G Hannah Administration Building, Michigan State University, East Lansing, Mich. 48824

Published weekly during the academic year by the Department of Information Services.

MSU Faculty News, Feb. 24, 1970

Tuesday, Feb. 24
6:30 a.m. (FM) MSU MORNING NEWS REPORT. (Monday through Friday.)
7 a.m. (FM) MSU MORNING NEWS REPORT. (Monday through Friday.)
7:30 a.m. (FM) MSU'S ESTELL READS, "Fire From Heaven" by Remsen. (Monday through Friday.)
10 a.m. (FM) ON CAMPUS. (Monday through Friday.)
11 a.m. (AM) TRANSAtlantic PROFILE. 11:30 a.m. (AM-FM) NEWS. (Monday through Friday.)
1 p.m. (FM) MUSIC THEATER, "The New Student". (Monday through Friday.)
3:30 p.m. (FM) BOSTON SYMPHONY, "Wedding March". (Monday through Friday.)
11 a.m. (AM) BOOK BEAT.
1 p.m. (FM) MUSIC THEATER. "Any Bag Full of Eggs." (Monday through Friday.)
8 p.m. (FM) ART OF GLENN GOULD, "Fourteen Little Pieces." (Monday through Friday.)

Thursday, Feb. 26
10 a.m. (AM) THE ART OF GLENN GOULD.
11 a.m. (AM) EUROPEAN REVIEW.
1 p.m. (FM) MUSIC THEATER, "Bajazzo." 7 p.m. (FM) CINCINNATI SYMPHONY ORCHESTRA.
9 p.m. (FM) JAZZ HORIZONS.
10 a.m. (AM) THE GOON SHOW.
1:30 p.m. (AM) FEDERAL CASE.
1 p.m. (FM) MUSIC THEATER, "Little Me." 4:45 p.m. (FM) EDUCATION IN THE NEWS.

Sunday, Feb. 28
9 a.m. (AM-FM) DICK ESTELL READS, "Fire From Heaven" by Remsen. "Washington" by Art Buchwald. 10 a.m. (AM-FM) THE WORD AND MUSIC.
10:30 a.m. (AM) VARIADES EN MUSIC.
11:45 a.m. (FM) RECENT ACQUISITIONS.
1 p.m. (FM) ALBUM JAZZ.
7 p.m. (FM) LISTENERS' CHOICE. Classics in a Free Society.

Monday, March 1
2 p.m. (AM) CLEVELAND ORCHESTRA.
6 a.m. (FM) FROM THE MIDWAY.
7 p.m. (FM) COLLOQUIUM.
9 p.m. (FM) MUSIC THEATER, "The Gilded Lily." 10 p.m. (FM) OPERA FROM RADIO ITALIANA, "Fara Orfeo." 11 p.m. (FM) MUSIC OF TODAY.

Wednesday, Feb. 25
4:30 p.m. (AM) YOUR MORNING NEWS. 6 p.m. (AM) THE MORNING SHOW.
7 p.m. (AM-FM) TRANSATLANTIC MORNING NEWS.
8 p.m. (FM) LET'S TAKE PICTURES. How to take holiday pictures.

7 p.m. YOUNG MUSICAL ARTISTS. Pianist Barbara Murphy.

Thursday, Feb. 26
7 p.m. LA REVISTA.
10:30 p.m. MINHIN. Greenwood Village writer's association carries him to verge of a nervous breakdown. 1 p.m. LES FLEURS.

7 p.m. ASSIGNMENT 10. (Saturday, February 28)
7 p.m. (AM) INNOVATIONS.
7 p.m. (AM) DICK SISK. Dick Gregory, Raven and Melanie.

10 p.m. DICK FREITAG.
3:30 p.m. THE ART SYMPHONY. "Fire From Heaven" by Remsen. 11:30 p.m. (AM-FM) THE ART SYMPHONY.
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1 p.m. (FM) MUSIC THEATER. "Any Bag Full of Eggs." (Monday through Friday.)
8 p.m. (FM) ART OF GLENN GOULD, "Fourteen Little Pieces." (Monday through Friday.)

February 24
7 p.m. KUFLA, FRAN AND OLLIE.
12:30 p.m. BLACK MAN IN THE AMERICAS, James R. Hooker defines Pan-Africanism. 4 p.m. (FM) LET'S TAKE PICTURES. How to take holiday pictures.

7 p.m. YOUNG MUSICAL ARTISTS. Pianist Barbara Murphy.

February 27
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