

China's army could incite or prevent civil war

EDITOR'S NOTE: Wesley Fishel, professor of political science, and Baljit Singh, associate professor of political science, analyze the current social and political situation in Red China, as the first of two parts on the perplexing turmoil in the world's most populous nation.

By RODERICK McILQUHAM

The current power struggle between Chinese Communist Party Chairman Mao Tse-tung and his opponents, reportedly

has China on the brink of civil war. The loyalty of the army, restrained from entering the conflict until recently, could determine the outcome of the struggle.

MSU specialists in Asian affairs, Wesley R. Fishel, professor of political science, and Baljit Singh, associate professor of political science, believe that the Chinese Communist Party split is complex and that contending factions have had good reason to keep the army out of the struggle.

Both professors expressed their views on China's current crisis in recent interviews.

Questioned on the nature of the party split, Fishel said:

"While we on the outside consider Communist China a monolith, actually it is like any structure, the closer you come to it the more evident are the cracks in the facade and in this case many are really deep fissures reaching into the heart of the party, indicating very basic differences among the Chinese Communist Party leadership.

"What evidence we have is very confusing, but indications are that there are several groups in opposition to Mao which have tried to coalesce to keep him from successfully implementing his ideas and

Our analysts



SINGH



FISHEL

to prevent themselves from being eliminated," Fishel said.

Fishel emphasized that none of the leaders of the various factions in contention is either anti-communist or non-communist. "Each considers himself a true believer," he said.

The Red Guards, the youth group that has taken Mao's ideological struggle into the streets of China's major cities, Fishel said, are a boldly conceived device created by Mao as a means of developing in short order, very quickly, an instrument of mass power or pressure to enable him to deal effectively and even

ruthlessly with dissident groups within the party.

Before the army's recent entry into the struggle, Fishel said that the situation was not yet a no-holds-barred dispute, but rather a contention for leadership within the party and government.

The divisions within the party leadership, he said, seem to be duplicated within the army. But the leadership realized that it was one thing for civilians to race through the streets shouting slogans and a totally different proposition for the military to enter with their weapons, he said.

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MICHIGAN STATE UNIVERSITY



Tuesday STATE NEWS

Pro-Mao leaders admit to split among followers

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Vacation's over for real, all classes to meet today

By BEV TWITCHELL
State News Staff Writer

The University will be back to normal today, academically, at least.

Provost Howard R. Neville said that all classes, day and evening, will be held, and all students and faculty members are expected to attend.

University Secretary Jack Breslin said that all non-academic personnel are also expected to return to work today.

Campus traffic, however, will still be restricted, with only three campus entrances open. These entrances are at Shaw Lane and Harrison Road, Farm Lane and Mt. Hope Road, and Kalamazoo and Harrison Roads. All cars will be screened at the entrances by University Police. Only faculty, staff, students, and emergency and service vehicles will be allowed on campus.

All traffic allowed on campus will be directed to parking lots. Buses are to be used for all campus transportation.

Capt. A. John Zutauf, police commander of the Dept. of Public Safety, said that Parking Lot L at Kalamazoo and Harrison Roads, Lot Y, the commuter lot, and a field east of Lot Y and the old poultry science farm area will be open to anyone. Lot I at the Men's Intramural Building may be used for faculty and staff parking only.

He said they hope to open other lots as soon as they are cleared, possibly late tonight.

Bus service will continue to be free to all students, faculty and staff. Fifteen buses were used Monday, running at five-minute intervals.

Henry W. Jolman, general foreman of the campus bus system, said that 20 buses will be used today, and the only route change will be made to avoid the check-

point at Kalamazoo Road. Buses will now go from Harrison Road to Birch St. to Kalamazoo, and should run at three-minute intervals.

Jolman did not have figures available, but said that more people were riding the buses Monday than could be handled at the five-minute intervals.

He said the free bus service is being run on a day-to-day basis, and did not know how long it would continue.

Burt D. Ferris, superintendent of grounds maintenance, said the grounds crew is working 24 hours a day to remove the snow. Additional equipment has been rented to complete the process.

Roads are being cleared first, for fire

and police protection, Ferris said, and to supply the residence halls with food. Key parking lots are next on the list. Snow is being dumped at Farm Lane north of the railroad tracks.

Philip J. May, University treasurer and vice president for business and finance, said he won't know how much the storm cost the University until the bills for overtime pay and rented bulldozers and front-loaders are in.

"All we've done so far," May said, "is say to do what you can to get the institution going again. When a University with 35,000 students is paralyzed, the important thing, naturally, is getting them back to their classes as quickly as possible."

Higher ceiling asked on national debt limit

WASHINGTON (AP) -- President Johnson's administration told Congress Monday that unless the debt limit is raised, the Treasury may be paying only half the nation's bills in March.

Secretary of the Treasury Henry H. Fowler asked for a \$7-billion increase in the temporary \$330-billion limit on the amount that may be borrowed to cover Treasury deficits.

Republicans seized the opportunity of debt hearings to open up on government fiscal policies, charging the administration is knocking loopholes in the debt limitation and keeping the public in the dark about mounting deficits.

They hit particularly at what they have

called a budget gimmick, the sale of participation interests in pools of government owned loans.

Treasury payments to more than 25 million people, including Social Security, veterans pension and retirement pay will be in jeopardy after March unless the Treasury gets more borrowing power, Fowler told the House Ways and Means Committee.

Other payments that could be effected, he said, include tax refunds, federal salaries, payments to farmers and to government contractors.

Summer draft up for doctors

WASHINGTON (AP) -- The Pentagon Monday called for the drafting of 2,229 doctors, including a first-time induction of osteopaths, beginning in July.

The request, placed with the Selective Service, is "necessary to provide the health services required by our armed forces," the Defense Dept. announcement said.

This summer, the armed forces will begin losing several hundred doctors drafted in mid-1965 at the start of the Vietnam buildup.

KENNAN ON RED SPLIT

New policies only way out of war



Kennan: "We stand at the parting of the ways . . ."

WASHINGTON (AP) -- Former Ambassador George Kennan cautioned Monday that if U.S. policymakers ignore basic shifts in the Communist world they may miss the only chance to "spare ourselves or our children" from nuclear war.

"We stand today at the parting of the ways with respect to our approach to the Communist world," the onetime envoy to Moscow told the Senate Foreign Relations Committee.

Kennan, credited with being the author of the cold-war containment policy for hemming in the Soviet Union, said the unity of the Communist bloc is a matter of the past, and it will not be restored.

"This Humpty Dumpty will not and cannot be reassembled," he said. Kennan said also that nuclear war before the end of this century is more probable than possible unless arrangements are worked out to bar the spread of nuclear weapons.

In dealing with Communist powers, he said, the United States should stand firm in the great, crucial matters, but seek accommodations on other topics. In that regard, he urged swift approval of the proposed consular convention with the Soviet Union.

"I see no appreciable dangers involved in it," he said.

"There is a great deal of opposition to it," said Sen. John Sparkman, D-Ala. "This is a reflection either of great misunderstanding of the nature of Communist power," Kennan said, "or of an entirely unwarranted timidity."

In the Communist world, Kennan added, there are forces willing to contribute to development of peace as well as forces "less inclined" to move toward peace. "We have it in our power, by the manner in which we frame our policies, to encourage or to discourage either of these conflicting forces," he said.

Student leaders reassert opposition to Viet war

By KYLE C. KERBAWY
State News Editor-in-Chief

WASHINGTON -- Stating that the administration is facing the possibility of a "great erosion of confidence among college students" towards U.S. policy in Vietnam, 18 student leaders Monday reasserted their doubts about and dissatisfaction with that policy.

ASMSU Chairman Jim Graham is a member of this "steering" committee, selected from 230 student leaders meeting this week at Dunbarton College. Their criticisms were voiced in a letter to Sec. of State Dean Rusk, the second such letter in a month, released at the National Press Club.

The letter is in response to Rusk's

rebuttal of an earlier critical letter signed by 100 student leaders and sent to President Johnson, Dec. 30.

Since then, 100 additional signatures have been added. The committee will meet today with Rusk against a backdrop, they claim, that appears to be an inexorable drift toward further escalation.

Seeking to encourage what the committee calls "frank discussion of Vietnam policy," the letter picked at "apparent inadequacies in the rationale for that policy."

Rusk said the country is following a "middle course" in the war and that the country is seeking peaceful negotiations.

The student leaders want to know what this "middle course" is, how it is to be pursued and what its goals are. Presumably, they say, anything between nuclear war and unilateral disarmament could fit such a label.

"We suspect that confusion and uncertainty is being generated by this term," the letter says. It is essential, it says, that the government demonstrate the good faith of its desire to negotiate a settlement.

The letter says any moves towards peace must be "tangible and unequivocal if they are to ease doubts of those here and abroad, who have come to question the sincerity of the U.S. desire to reach a settlement."

Graham emphasized for the committee that they represent a more moderate protest group than the ones normally publicized.

"We offer a more quiet type of dissent -- a type that rarely gets much notice in the press," he said. "But we believe it is a type of opposition getting more and more prevalent on all types of college campuses today."

Draft violators OK'd for service

WASHINGTON (AP) -- President Johnson signed an executive order Monday providing new regulations to permit men convicted of violating the Selective Service law to be paroled for active duty in the Armed Forces or assignment to civilian work.

The White House noted that similar regulations were in effect during World War II.

Any person convicted of Selective Service law violations may apply, under the new procedure, to the attorney general for parole to serve on combat, non-combatant duty or for assignment to appropriate civilian work.



The farewell salute

Fellow astronauts of Virgil "Gus" Grissom, Ed White and Roger Chaffee, who died at Cape Kennedy Friday, fly in the "Missing Man" formation reserved for deceased flyers as they make a low pass over the memorial services held Monday for White. UPI Telephoto

NATION MOURNS

Astronauts buried today at Arlington, West Point

WASHINGTON (AP) -- Two Apollo 1 astronauts will be buried side by side in Arlington National Cemetery today, while the nation joins their families in mourning.

The third astronaut victim of Friday's spacecraft fire at Cape Kennedy, Fla., will be buried at the Military Academy at West Point, N.Y.

The flag-draped coffins of Air Force Lt. Col. Virgil I. Grissom and Navy Lt. Cmdr. Roger B. Chaffee arrived at Arlington Monday in hearses which had met an Air Force jet transport from Cape Kennedy at Andrews Air Force Base.

The plane then flew on with the body of Air Force Lt. Col. Edward H. White II, who will be buried today at West Point.

A brief, solemn ceremony was held at the airbase when the plane carrying bodies of the three astronauts landed. Several hundred military dependents lined the retaining fence at the landing apron as two eight-man parties of bearers carried the coffins of Grissom and Chaffee from the aircraft.

Earlier Monday, Cape Kennedy bade farewell to America's three Apollo astronauts. Their remains headed toward their burial sites in flag-draped coffins.

Members of a board of inquiry probing to answer the torturing question, "Why did it happen?" stood with about 300 other persons as the bodies of Air Force Lt. Col. Virgil I. Grissom and Edward H. White II and Navy Lt. Cmdr.

Roger B. Chaffee left in the same Air Force jet.

Although there was no official confirmation from the board of National Aeronautics and Space Administration, all signs today indicated that a flaw somewhere in Apollo 1's electrical system sparked the fatal flash fire that turned the moonship into a deadly furnace.

There was also reason to believe that the investigators do not now know exactly where or how that flaw occurred.

With a military escort, the coffins were carried in civilian hearses from a medical dispensary to the Cape Kennedy airfield, located less than four miles from the launch pad where the spacemen died Friday.

Grieved friends stood solemnly at plane-side, as an Air Force band played Chopin's funeral march, an Air Force hymn, and "Abide With Me" and "Faith of Our Fathers."

Present was a fellow Apollo astronaut, Air Force Col. Frank Borman, a member of the board of inquiry.

Lansing area may get more snow

The Lansing area may receive an extra dosage of precipitation today as mostly cloudy, warmer weather is predicted with rain or snow and possible snow mixed with freezing rain.

Today's high temperature will be 32 degrees. This weekend's 24-inch snowfall pushed January's snow accumulation figure to 29.8 inches, compared to January's normal 11.2 inches.

The winter season's snow accumulation so far is 56.7 inches, more than double the normal accumulation for the entire winter season of 25.5 inches.



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EDITORIALS

The spark of death

"The conquest of space is worth the risk of life." - - Astronaut Lt. Col. Virgil I. (Gus) Grissom.

It was a risk accepted and unquestioned by all the men in a daring profession, one where danger was a common place condition and death lurked in the shadows of every new venture.

Gus Grissom--the colorful veteran spaceman from the days of Mercury and Gemini, Ed White--the first American to walk in space, a graduate of the University of Michigan, Roger Chaffee--the handsome and brilliant rookie astronaut from Grand Rapids.

These men had captured the imagination of America, in the sixties, as Lindbergh had in the twenties. They were to lead the way in this final U.S. drive towards the moon, Project Apollo. Friday they perished in one blazing instant, when a swift flash of flame swept through their space capsule, as it sat high atop a Cape Kennedy launch pad.

The shock, the tragedy, and the irony of their death make it something all the more difficult for us to accept. The three fliers died just 218 feet above the ground, trapped in a capsule they were "routinely" checking out for a February



flight. Yet they died as helpless and isolated as if the craft had been hundreds of miles out in space.

There are those now who will question the wisdom of the entire U.S. space program. And while the nation awaits some explanation of Friday's tragedy, the \$23 billion Apollo mission will be forced to pause and answer the inevitable charges of "haste".

But Gus Grissom, speaking on behalf of the trio, best summed up what SHOULD and MUST be, concerning the astronauts themselves and the ultimate direction of our space program:

"If we die, we want people to accept it. We are in a risky business and if anything happens to us, we hope it will not delay the program."

The astronauts themselves were perhaps more prepared for their fate than a generation of youthful Americans, not yet hardened to the task of writing off its heroes.

--The Editors

ASMSU word 'game' masks real meaning

The ASMSU Student Board has devised a sugar-coated term to mask a bitter pill. Last Tuesday the board began a new practice. Before every regular meeting, it will hold an "informal" meeting to discuss new motions. Later, at the formal meeting, these motions will be brought up again and possibly voted on.

By invitation

Though ASMSU dubs these little get togethers "informal," it appears that attendance at them is strictly by invitation. Neither the press nor the general public may attend. The "informal" meeting should be recognized for what it really is--a closed meeting.

The board claims that by first hashing over the motions at the closed meetings, it can shorten the formal meetings. Obviously it thinks that the presence of the press would hamper this hashing out.

Reasons untold

In other words, the board members quite likely may take a stance on an issue for reasons they do not want

the student body to hear. Each board member is entitled to his private opinion, but when he is acting in his capacity as representative of the students, carrying out student government business, his statements should be made available.

Communication

To do otherwise would be to break down communication between the board and its constituents. Students would not know the real reason why board members voted for or against certain programs.

We won't buy the closed meeting idea, no matter how sugar-coated the semantics. Closed meetings have no place in student government.

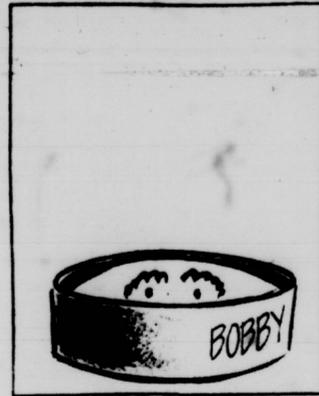
--The Editors

Outlook



Bobby Baker, one-time congressional aide convicted of tax evasion, larceny and conspiracy, reports no plans to cut a record.

Entropy is falling.



Baker's disaster

TED MILBY

Graham's trip, mission or junket?



This week Jim Graham, chairman of ASMSU, is in Washington to speak with Sec. of State Dean Rusk and to help draft a letter to President Johnson concerning U.S. policy in Vietnam.

At first impression, this seems an admirable undertaking, a student leader speaking with the nation's leaders about his constituent's feelings on a national problem. What could be more democratic, more American?

But it is not so simple as that. For one thing, Graham does not know how the student body feels and it does not know how Graham feels except in a general and second hand way.

To further complicate matters, ASMSU donated \$50 to Graham to help defray the costs of the trip.

This was an interesting appropriation. Theoretically Graham is going not as chairman of ASMSU, but as a private individual.

If this is the case then ASMSU is spend-

ing student tax money on a private junket, and, to be perfectly fair, should give an equal amount to any student requesting money to take advantage of a "tremendous opportunity" (Graham's term).

But of course this is not the case. Graham would not be making the trip were he not the chairman of ASMSU nor would he get the money.

Furthermore, whatever Graham says will not be taken as the opinions of Jim Graham, private student, but Jim Graham, chairman of ASMSU, and whatever he says will be taken as representative of the feelings of MSU students.

Question of accuracy

This raises the question of the accuracy of Graham's representation of the MSU student's views on Vietnam.

In a letter to the State News last week Graham stated he has never publicly stated his view on Vietnam. But his views are no tightly guarded secret. In the debate over spending the \$50 on the trip one of the arguments against the appropriations was that spending the money would appear to be an endorsement of Graham's opposition to the war. This objection was raised by Graham's fellow board members who undoubtedly have discussed the matter with him in private and know his general position.

On the contrary

This position is directly contrary to the only known gauge of MSU student opinion (except those reflecting the views of only a few students). This was the petition supporting President Johnson's position in Vietnam which was circulated last fall and which collected over 15,000 signatures. Of course this petition cannot be taken as an accurate view of the student body's views either: The wording on the petition was vague and, since the time it was circulated, opinions on campus seem to have changed considerably due to increased commitment, the growing casualty rate and the opening of the "credibility gap." The fact remains, however, that this is the only available gauge of student opinion, and until something concrete supersedes it, it should be respected.

The situation boils down to this; if Graham is not representing MSU students and ASMSU, then ASMSU donated \$50 to him for a joy ride; if Graham is representing MSU, a more likely state of affairs, then Graham is purporting to represent student views with no indication of the views of the students he is purporting to represent.

David A. Penz
Tuscaloosa, Ala., sophomore

Nostalgic

To the Editor:

Richard Phillips's nostalgic series on his trip to Alabama sounded like the nostalgic croakings of Aryan visitors to Nazi Germany, but then they weren't Jewish, either.

Corrine Jennings
Providence, R.I.
graduate student



OUR READERS' MINDS

Free enterprise and the multiversity

To the Editor:

As a former student of Wayne State University, with first-hand knowledge of Detroit's inadequate transit system, I have a genuine and abiding sympathy with our dorm-commuting students. A daily exposure to jostling and suffocating bus rides is an unnerving and disagreeable experience.

Therefore, I was astonished to learn (State News editorial, Jan. 20) that the present, ungodly Spartan bus system is self-financing and that, according to Mr. Jolman, general foreman of the operation, that introduction of advertising on MSU buses would conflict with the University's policy of supporting the free-enterprise system.

Two points need to be made in this regard. First, there is no mass transit system in the country that can operate without some kind of government or public subsidy. Since the University saw fit to build the dorm complex out on the tundra, common sense (admittedly, a rare commodity these days), would suggest that it also provides a cheap, efficient and reliable means of transporting the student from abode to classroom and back. Responsibility, I think, should accompany noble ambition.

Second, there can be no question but that all of us must strive to help the University maintain and perpetuate the pristine beauty of free enterprise. But if this laudable goal is to be more than a handy smokescreen used to justify University policies that adversely affect the students (as, for example, participating in the bookstore cartel with private merchants across Grand River Avenue), I would suggest the University apply the

tenets of free enterprise across-the-board and in a non-discriminatory manner.

Thus, I should like to offer a modest program. It might include: (1) a faculty salary system based on direct payments made by attending students --for instance, a coin-operate turnstile could be set up outside each lecture hall; such an approach could encourage interesting, well-organized and oft-revised lectures; (2) abolishment of tenure, i.e., no guaranteed employment; this could generate the competitive spirit among the faculty and perhaps result in higher quality teaching and publication records; (3) abolishment of

all athletic and academic scholarships or, alternatively, wage payments based on the going market rate for these special skills; the effect may be to avoid the need (or the temptation) to supplement the income of certain bright but indigent or highly talented individuals with under-the-table sugar plums; (4) direct student representation on the board of directors (or whatever) commensurate with their investment in the University; this would be consistent with the existing American corporate system whereby each share of stock entitles the holders to a vote on the composition of the ruling

body. Finally, perhaps a true test of its cherished beliefs, the University could refuse to accept any federal assistance financial or otherwise.

This modest program by no means ex-

hausts all the possibilities but it would be a good first step.

Harold Reinholds
East Lansing
graduate student
economics

Alabamian gets last laugh

To the Editor:

Mr. Phillips's series of articles concerning Alabama was delightful and refreshing. His impressions seemed to this native to present a clearer picture of the Alabama way of life than the ordinary article of this type appearing in the northern press.

His column concerning bootlegging in Alabama, although largely factual, contained some very misleading statements. Although the production of alcohol in Alabama is indeed illegal, the consumption of same is legal. However, various cities and counties have made alcoholic beverages unlawful according to local option. All alcohol, excepting beer, is sold by the state government through the Alcoholic Beverage Control Commission stores. State liquor taxes are relatively heavy, but the ABC board obtains substantial discounts and as a result retail prices for liquor in Alabama are comparative to those in Michigan. Alabama beer is also taxed by the state, but one need not pay more than 30 cents a can by the carton or case wherever such purchase is legal. Naturally if a retailer sells alcohol in a dry county or to a minor he would be expected to charge more. If Mr. Phillips paid 50 cents a can for beer, his case appears to be one in which the shrewd Yankee got shafted by the ignorant hill-billy. It may be of interest to observe that all of the income to the state through the sale of alcoholic beverages is earmarked for the state's schools and mental institutions.

Noted with interest were Mr. Phillips's observations on the racial situation in Alabama. Having spent a year and a half

Powell is no hero

To the Editor:

In response to the letter of Barry D. Amis I would comment, "How white of him".

It is hardly complimentary to any group to set up a man like Adam Clayton Powell as embodying a "new spirit" representing their group. For Negroes have so many truly fine people of Negro descent to emulate and admire. People who have maintained their dignity and sense of worth as a human being while still being "outspoken, courageous and flamboyant." They are, in fact, worthy of admiration by all fellow human beings.

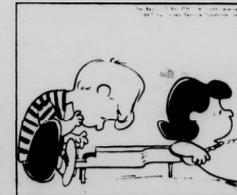
Adam Clayton Powell uses his partial "blackness" for his own purposes. It gets him elected and keeps him in office. (He will probably succeed himself once again.) He is using it now to keep him from prosecution, not the persecution he claims.

During his college days Powell didn't feel his "blackness" was such an asset. He passed for white and nearly joined a white fraternity. Except for Hazel Scott, his wives and girlfriends are white. He's never been poor and is hardly in a position to really identify with his ghettoized electorate. His constituents are useful and support his self-indulgences. In return, he puts on a great show. He is what I term a Professional Negro.

The law suit that started all this was instituted by a Negro woman against whom he was convicted of libel. It would appear that in this case he thumbed his nose at the wrong time and therefore started the crumbling of his own empire.

Powell is a handsome rascal. He has style, is an articulate spell binder, and a great lover. But, Baby, hardly a hero to cause anyone to lose his cool over.

Shirley Lacy, faculty wife



World News at a Glance



Czech-American faces secret trial

PRAGUE, Czechoslovakia (AP) -- A court decided today to hold the espionage trial of Vladimir Kazan-Komarek, a Czech-born American, behind closed doors to protect state secrets, but admitted two U.S. Embassy representatives to the closed sessions. Kazan-Komarek, 42, is charged with organizing activities against the Communist regime almost two decades ago.

Refugee says USSR aids China rebels

ISTANBUL, Turkey (AP) -- A Soviet-based Turkistan refugee army has been making guerrilla raids inside Communist China's rebellious Sinkiang province, a Moslem refugee official said Monday. The assertion was made by Isa Yusu Alptekin, president of the Eastern Turkistan's Refugees Association. Eastern Turkistan is the Turkish name for Sinkiang.

'Fascist' emigrants blamed for blasts

BELGRADE, Yugoslavia (AP) -- Yugoslav papers said Sunday explosions at Yugoslav diplomatic missions in the United States and Canada were the result of U.S. and Canadian tolerance of "Fascist" Yugoslav emigrants. One paper, the government's Politika, said the blasts represented "retaliation" by "American and Canadian official circles, or perhaps only one of them," to the Yugoslav attitude against the war in Vietnam.

Labor strikes, violence follow arrests in Spain

MADRID (AP) -- Spanish student and worker protests over police arrests snowballed Monday into a violence-studded problem for the government of Gen. Francisco Franco. Many students were detained at Madrid University, where students and security forces clashed in a pitched battle of stone and clubs. At least three foreign newsmen observing the clashes were beaten by police. Witnesses estimated that 50 students and police were injured, some seriously, as the police barred a student attempt to march to the rector's office to demand release of classmates seized after a similar struggle Friday. At the same time, more than 7,000 miners in the Asturias coal fields 280 miles north of Madrid began a strike, demanding freedom for 10 leftist-oriented union representatives arrested for what the civil governor said was instigation of a Communist-inspired, 24-hour work stoppage. There were other strikes in Madrid and Barcelona as authorities sought to end the snowballing movement of students and workers. At Barcelona, more than 5,000 textile workers left their posts, demanding the release of work-

ers detained Friday during attempts of opposition groups to swing a massive protest demonstration across the nation. Almost 15,000 Madrid employees of the American-controlled Standard Electric Co. began a similar work stoppage for the same reason. But they returned to their jobs within half an hour.

Stock sales soar

NEW YORK (AP) -- Trading volume on the New York Stock Exchange soared Monday to the highest monthly level in history. The avalanche of transactions traded in 23 trading days in March in the first 20 trading days of January reflected a resurgence of confidence that exploded at the beginning of the new year. At about 12:45 p.m., the exchange announced that volume change so far this month had topped the old record of 191,524,000 shares in 23 trading days in March 1966. Volume and prices started rising simultaneously at the beginning of the New Year.

'U' to ask med school funds

A supplemental budget request for MSU's recently approved four-year medical school will be sent to Governor Romney's office in the very near future, Jack Breslin, university secretary, reported Monday. The supplemental request must first be approved by the MSU Board of Trustees. A formal presentation of the MSU's budget request will be made by various administrators sometime in February. The State Board of Education approved the expansion of MSU's medical school from two to four years Jan. 25. Romney said in a press conference Thursday that the recommendation came too late for his current budget proposals. "It will not be dealt with in my budget message which I had

put to rest before the (board's) action was taken," he said. MSU currently has a \$10-million capital outlay request for the first Life Science building and \$875,000 for operations of the present two-year school. The supplemental budget will request additional funds to begin development of the full medical school, but Breslin had no definite figures as yet. Current plans would have the full medical school in operation by 1969.

Tutors needed

MSU's English Language Center is looking for volunteer tutors for foreign students studying English. Interested parties may call the center at 353-0800.

Ex-Nazi on trial for Dutch deaths

MUNICH, Germany (AP) -- A photograph of a smiling girl with large intelligent eyes was held up today before a former SS - Elite Guard - major on trial on charges of aiding in the murder of 55,582 Dutch Jews. "Do you know this child?" lawyer Robert M. Kempner asked the defendant, Wilhelm Zoepf, 58. "Zoepf: "Yes, That's Anne Frank." Kempner: "This girl was reported under your responsibility."

Zoepf: "Yes, I know that." Kempner: "What do you think of this now." Zoepf: "I had never seen her before. But one is horrified because she is a child." Kempner: "I charge you that, in individual transports, 48 per cent were women and 22 per cent children."

Zoepf: "We wanted to keep the families together." Kempner, a former U.S. deputy prosecutor at the Neurnberg war crimes trials, is representing Otto Frank, Anne's father, in the case against Zoepf. After her death in the Bergen-Belsen concentration camp in 1945, Anne's diary became world famous. It describes the Frank family's two years in hiding in an Amsterdam attic.

Zoepf, who once headed the Nazi Jewish Affairs Office in the Netherlands, is on trial with his former superior, ex-Naz Gen. Wilhelm Harster, and his former secretary, Gertrud Slotke.

LBJ hits air pollution

WASHINGTON (AP) -- President Johnson Monday called for an all-out assault on air pollution. "The economic loss from pollution amounts to several billions each year," Johnson said in a special message to Congress. Johnson's first recommendation was for an air quality law to control mission levels for industries. He also proposed the establishment of regional commission to enforce pollution control measures in "air sheds" which cross state and local boundaries.

NOTICE TO ALL STUDENTS

Academic Advising, Enrollment, and Registration For 1967 Spring Term

GENERAL INSTRUCTIONS FROM THE REGISTRAR

During the period February 1-3, obtain a 1967 Spring Term Time Schedule For Courses and a Student Schedule Card . . . (available to dormitory residents in their residence hall on Wednesday, February 1; and to other students in the first-floor concourse of the Union Building, and the Center for International Programs, on Thursday-Friday, February 2-3, during the hours 8 a.m.-5 p.m.). A summary of what to do -- where, when, concerning the enrollment and registration procedure for Spring term is outlined in the 1967 Spring Term Time Schedule For Courses. If your Student Academic Progress Plan (or similar planning form that may be used in your college) needs updating, see your academic adviser according to the arrangement in your college (and possibly department) as outlined below:

COLLEGE OF ARTS AND LETTERS

All Students in the College of Arts and Letters, except Art Majors, should see their academic advisers during their office hours on Monday, Tuesday, and Wednesday, February 13, 14 and 15. Advisers will be in their offices at least one hour each afternoon and morning of these three days. Check with department offices for the hours of individual advisers. Make an appointment to minimize waiting in line or if you cannot come at the hours scheduled, you may also see your adviser before these dates during his regular office hours or by appointment. Bring with you a trial program! Art majors and minors should see their art advisers on Monday, February 13. All art classes will be dismissed on that day and advisers will be in their offices from 8-12 and 1-4.

COLLEGE OF BUSINESS

All students, including graduate students, should see their advisers during regular office hours. Academic advising is a continuing process in which a student and a faculty member discuss possible options in a student's potential career, total education program, and chosen major. Enrollment is a student responsibility in selecting courses for a term schedule from a student's academic plan previously developed but continually reviewed with the adviser. Electives should be reviewed and approved periodically by the adviser. General electives taken during the Junior and Senior years should be primarily at the 300-400 level. The required upper level Economics electives are often used as a supplement to the student's major requirements and should be selected in consultation with the adviser or from an approved departmental list in the major department. All students in the College of Business are responsible for studying and knowing University, College, and Departmental requirements as stated in the MSU Catalog. Juniors and Seniors should conform to catalog requirements and to the additional College policies carried in a statement mailed to all upper level students just prior to the opening of Fall term (A copy of this statement is available in 313 Berkeley Hall). Upper level students in the College of Business (1) should not repeat "D" grades, (2) should not exceed the 12 credit repeat limit, (3) should not schedule excess credits, (4) should not take graduate courses, (5) should not request permission to drop courses after the official midterm date except for catastrophic reasons, and normally should not request permission to drop courses after the free drop period provided at the beginning of the term. The Office of Assistant Dean is responsible for enforcing such policies and may enforce them by the use of Dean's Drops, withdrawal of College registrations, specific request refusals, and other means not popular with students who do not conform to clearly stated College of Business policies. Seniors, starting their senior year, should submit an adviser-approved student academic progress plan for the Assistant Dean's file. This plan should clearly show how the student plans to meet his graduation target with all course requirements met. Seniors may leave their senior year academic progress plans with their advisers for transmission to the Assistant Dean's Office or bring them to the Office personally. First term seniors are encouraged to make appointments during the forthcoming term with Mr. Mier or Mr. Morris in 313 Berkeley Hall (5-7605-Assistant Dean's Office) to discuss their senior year academic progress plans and their graduation requirements. A senior is certified for graduation by his major adviser and by the Office of Assistant Dean. While the student is responsible for knowing and meeting all graduation requirements Mr. Mier or Mr. Morris are available to help, in addition to the student's adviser, in interpreting requirements and handling senior year scheduling problems. If no plan is submitted it is assumed that the student will graduate at an indefinite future date when all requirements are met.

COLLEGE OF AGRICULTURE

Agricultural Business, Feb. 6-7-8, By Appointment. Agricultural Communications, Feb. 8-9 - 8:00-5:00. Agricultural Economics, Feb. 14 - 8:00-5:00. Agricultural Education, Freshmen - Feb. 7- 9:00-3:00; Sophomore - Feb. 8 - 9:00-4:00, Feb. 9 - 9:00-3:00; Junior - Feb. 6 - 8:00-3:00, Feb. 13 - 1:00-5:00; Senior - Feb. 3 - 4:00-5:00, Feb. 8 - 8:00-5:00. Agricultural Engineering, Feb. 6 Through 10. Animal Husbandry, Feb. 8 Through 16 - By Appointment. Biochemistry, Feb. 1 Through 16. Crop Science, Feb. 9-10. Dairy, Feb. 15 - 8:00-4:00, Feb. 16 - 8:00-5:00. Extension Personnel Development, Feb. 13-14-15 - 8:00-5:00. Fisheries and Wildlife, Feb. 7 Through 10, By Appointment with Adviser. Food Science (New Building-Room 234B), Feb. 7-8-9 - 8:00-5:00. Forest Products, Feb. 7 Through 10. Forestry, Feb. 8 - 8:00-5:00 & 7:00-10:00 P.M., Feb. 9 - 8:00-5:00. Horticulture, Feb. 9-10. Packaging, Freshman & Sophomore - Feb. 10, Juniors - Feb. 8 & 9; Seniors - Feb. 6 & 7; Graduates - Feb. 13. Poultry Science, Feb. 1 Through 16. Resource Development, Feb. 13 - 8:00-12:00, Feb. 14 - 1:00-5:00, Feb. 15 - 8:00-12:00. Soil Science, Feb. 6 Through 9.

COLLEGE OF VETERINARY MEDICINE

Pre-veterinary

All students enrolled in the regular and upper level special pre-veterinary programs should check with their academic adviser and, if necessary, schedule an appointment.

Veterinary

- (1) Students enrolling in Terms I or 3 (new curriculum) should make an appointment with their academic adviser (Room 178 Giltner Hall).
- (2) Students enrolling in Terms 5, 7, or 9 (new curriculum) will be "mass-enrolled" by the Dean's Office. Students not wishing to be included in "mass-enrollment" must notify the Dean's Office by February 6.
- (3) Seniors (old curriculum) will not be "mass-enrolled."

Medical Technology

All student come to Room 179 Giltner Hall to schedule appointment with adviser.

Graduate

- Meet with major professor.

COLLEGE OF SOCIAL SCIENCE

Labor & Industrial Relations - All majors should see their advisers Friday, Feb. 17, between 9:00 and 5:00. Social Science - Office hours of the advisers are posted in 245 Fee Hall. Anthropology-No special instructions. Geography - Students will be notified. If you do not receive a letter, please call the Department, 5-4650. Political Science - Feb. 15 or 16 any major who wishes to see his adviser should call the Department Office, 355-6591, to make an appointment. Psychology-Office hours of the advisers will be posted on the bulletin boards across from 199 Olds Hall. Sociology-Students will be notified by mail. If you wish to see your adviser for early enrollment, their hours are as follows: Dr. Conner - Feb. 13, 14, & 15, 10:00-12:00 and 3:00-5:00. Dr. Hoffer - Feb. 13, 14, & 15, 10:00-11:30 and 3:00-4:30. Dr. Hurdey - Feb. 13 & 14, 9:00-12:00 and Feb. 15, 1:00-4:00. Dr. Trout - Feb. 13, 14, & 15, 1:30-4:30. Police Administration and Public Safety-Students who have not had their programs planned for the Spring term should report to Room 412 Olds Hall on Feb. 13, 14, or 15. Social Work-Students will be notified. If you do not receive a letter, please call the School, 5-7517. Urban Planning - Students should see their advisers as follows: Mr. Barr - Feb. 16, 9:00-12:00 & 1:30-5:00; Feb. 17, 2:00- 5:00. Mr. Farness - Feb. 16 & 17, 1:00-5:00. Mr. Honey-Feb. 16, 1:00-4:00; and Feb. 17 & 20, 9:00-12:00. Mr. Krueckeberg-Feb. 20, 1:30-5:00; and Feb. 21, 9:00-1:00. Landscape Architecture-Majors will see their advisers during regular office hours which are posted outside the adviser's office door.

COLLEGE OF COMMUNICATION ARTS

Department Of Advertising

Students will see their advisers for pre-enrollment by appointment during the period from February 6 through 15. Appointments for definite time during this period must be made by visiting the departmental office in Room 204 Journalism Building or by calling 355-2314.

Department Of Communication

Advising for Spring Term will be conducted during regular office hours from February 6 through 10. Students should make individual appointments to see their advisers by calling 355-3470 or by visiting Room 345 South Kedzie Hall, the new location of the departmental offices.

School Of Journalism

Students will see their advisers for pre-enrollment by appointment during the period from February 6 through February 15. Appointments for a definite time during this period must be made by visiting the departmental office in Room 204 Journalism Building or by calling 355-2314.

Department Of Speech

Appointments for academic advising may be made from February 1 through February 15, telephoning 355-6690 or by stopping in person at the speech department office, Room 149 Auditorium. Advising will take place from February 6 through 10 by appointment only.

Department Of Television-Radio

Students will see their advisers for pre-enrollment on the evenings of February 14 and 15 from 7:00 to 10:00 p.m. on the following alphabetical schedule: A through M, February 14; N through Z, February 15. Please note that the department has a new address, Room 322 of the MSU Union Building, and report there for advising.

COLLEGE OF HOME ECONOMICS

Students in the College of Home Economics are requested to make appointments with academic advisers if assistance is needed in planning spring term course schedules. If plans have been approved by advisers and students are in good standing, it will not be necessary to see advisers. All students on academic probation, however, should counsel with advisers before pre-enrolling. Appointment schedules beginning February 1 - 15 have been posted outside the office door of each academic adviser for the convenience of students.

JUSTIN MORRILL COLLEGE

- 1. During the week of February 6-10, students should contact their academic advisers to plan a program for Spring Term.
- 2. After the adviser has approved the program, the student should present to the Office of Student Affairs, 135 Snyder Hall, two copies of his program according to the following schedule:

a. Monday	Feb. 13	1:00-5:00 p.m.	A-J
b. Tuesday	Feb. 14	1:00-5:00 p.m.	K-R
c. Wednesday	Feb. 15	1:00-5:00 p.m.	S-Z

COLLEGE OF NATURAL SCIENCE

Group I Those students who have planned previously a Spring Term program with their academic adviser and do not intend to change it are to use the following procedure. (Physics and mathematics majors see Group 2) 1. Enroll for Spring term in the Men's Intramural Building during the period February 16 - 22. A student schedule card to identify the sections wanted should be completed before going to the Men's Intramural Building. 2. Pay fees and complete the registration process in either of two periods: March 13 - 17 or the regular registration period at the start of the Spring term - March 27 - 28. Group II Those students who must confer with their academic adviser before enrollment (ALL PHYSICS MAJORS and MATHEMATICS MAJORS are strongly advised to review their programs with their advisers each term) are to use the following procedure. 1. During the period February 6 thru February 15, a time to see your academic adviser is to be reserved by signing the appointment form posted on the academic adviser's office door. This is to be done as early as possible, preferably in the period February 1 thru February 10. 2. The conference with the academic adviser is to occur in the period February 6 thru February 15. 3. Enroll for Spring term in the Men's Intramural Building during the period February 16 - 22. A student schedule card to identify the sections wanted should be completed before going to the Men's Intramural Building. 4. Pay fees and complete the registration process in either of two periods: March 13 - 17 or the regular registration period at the start of the Spring term - March 27 - 28.

NO-PREFERENCE UNIVERSITY COLLEGE

Have you seen your adviser?

Students who do not confer with advisers must assume full responsibility for their programs. Each No-preference student should have received an invitation to come to his advisement center for program planning for spring term.

Students enrolling in evening classes only may confer with an adviser by telephone (355-3515).

NOTE: special drop-add period Monday evening for students who must repeat a course taken winter term.

COLLEGE OF ENGINEERING

Each Engineering student should have received advisement instructions from his academic adviser. Those who have not received instructions should contact their academic adviser immediately.

COLLEGE OF EDUCATION

Advisement Center

Undergraduates assigned to the advisement Center should not make an appointment with their advisor unless they are in need of special assistance. All new freshmen and transfer students should have made an appointment prior to pre-enrollment for the purpose of planning their program for the entire year. All students may, however, see their advisers if additional help is desired. Those students wishing to make an appointment with their advisor should contact the receptionist in 134 Erickson Hall either in person or by phoning 355-1900. The receptionist will make all appointments for the following advisers: Mrs. Blanding, Mrs. Cobb, Mrs. Follente, Mrs. Hedeman, Mrs. Linton, Mrs. Nutter, and Mrs. Wainright. Advises of Dr. Harding should contact Miss Guthrie at 355-1902.

Undergraduate Faculty Advisers

Faculty advisers for undergraduates in Industrial Arts, Elementary Education, Special Education, and Health, Physical Education and Recreation will observe normal office hours from February 1 to February 15. Students needing assistance in program planning may arrange advisement appointments during this time.

Graduate Advisement

Graduate students in Education are encouraged to enroll early. Instructions are contained in a letter distributed from the Graduate Student Affairs Office. Special enrollment arrangements are provided for graduate students from 6:30 to 8:30 p.m. Monday February 13, through Thursday, February 16, in room 252 Erickson Hall.

COUNSELING CENTER Changes Of Major For University College Students (Freshmen and Sophomores).

Changes of major may be initiated at the Counseling Center, 207 Student Services Building, from 1:00 to 5:00 p.m. Monday through Friday.

For the convenience of students the Counseling Center has made arrangements to have staff available to write changes of major for those living in the Brody, South Campus and East Campus in their respective Counseling Offices as follows: BRODY COUNSELING OFFICE - Room 109; 3:00 - 5:00 p.m. Monday through Friday. WONDERS COUNSELING OFFICE - Room S-33; 3:00-5:00 p.m. Monday through Friday. HUBBARD COUNSELING OFFICE - G-36C; 10:00-12:00 a.m. Monday through Friday 3:00-5:00 p.m. January 30 through February 17.

Changes of major to be effective for Spring Term must be made prior to Registration for Spring Term.

Benington's subs fill the cage bill

Some of the greatest athletes in the world were, for many years, either ignored or "undiscovered." Eddie LeBaron, Maury Wills and Bob Cousy, were all told they lacked the stuff necessary to be a professional, and each one of them came off the bench and proved the experts wrong.

In last Saturday's basketball game against Wisconsin, Spartan Basketball Coach John Benington called on his bench, as he indicated he would before the game, and the reserves did not let him down.

Benington started John Holms in place of Art Baylor at forward, and Holms, while he was in the game, did such a good job guarding high scoring Badger forward Chuck Nagle, that Nagle could manage only three field goals.

Jerry Giestler also saw action and did a commendable job on Wisconsin's seven-foot center Eino Hendrickson.

And then Benington made the biggest move of the day. He put Shannon Reading in the game and Reading responded with seven field goals and 15 points. Reading played in Baylor's forward spot for much of the second half.

"I felt we might have to go with (Steve) Rymal or Reading at forward to give us a little more scoring punch," Benington said. "It's an option I'll use depending on the team we play."

Benington said he always knew Reading was a good shooter, but was surprised at how well Reading took to the forward position.

The MSU coach also expressed surprise at Wisconsin Coach John Erickson's decision to start Hendrickson in place of Jim Johnson, who had started the previous two games.

Benington said he expects to start Holms again Wednesday against Notre Dame. This, he said, will allow more maneuverability of Baylor, at forward and center.

"I'm liable to start anybody at South Bend," he said. "I may start Richie Jordan at one of the guard spots."



Above the crowd

Bjorn Wirkola, world champion ski jumper from Norway, turned on his championship form Sunday at the Blackhawk Ski Club's ski jumping contest in Middleton, Wis., to better the meet record by six feet. Wirkola's record jump measured 206 feet.

UPI Telephoto

STARTS IN APRIL

Backed by millionaires, pro soccer comes to U.S.

By DENNIS CHASE
Associate Sports Editor

Those sport enthusiasts who for some reason are not getting enough action can settle back in their seats, grab hold of an all-day sucker, and relax. Starting in April and extending through September, soccer will be added to the already crowded U.S. sports scene.

Players and coaches from all over the world will participate in a television-produced, money-backed extravaganza designed to satisfy even the most skeptical follower.

This is big business, and the fellows who are backing the venture aren't kidding. Soccer is coming to this country after playing to 150,000-plus crowds all over the world.

Two leagues are involved. The National Professional Soccer League has ten teams and will begin a 32-game schedule in April. The league has not been sanctioned by the International Soccer Federation because it refuses to pay television royalties to the Federation, and because it has declared itself a "free market" for signing players, disregarding the Federation's restrictions.

The North American Soccer League has twelve teams and is sanctioned. It will not begin play until May, 1968. Backers for this league include William Clay Ford and Edwin J. Anderson of the Detroit franchise, Judge Roy Hofheinz, owner of the Houston Astros Baseball Club and Astrodome Stadium, of the Houston franchise, and Lamar Hunt, owner of the Kansas City Chiefs football team and son of H. L. Hunt, the richest man in the United States, of the Dallas franchise. These guys aren't accustomed to losing money.

Both leagues are television creations. CBS will subsidize the National Professional League to the tune of \$1 million, in hopes of expanding the relatively small number of hard core fans into something approximating the football and baseball turnouts. It is a gamble. The Ford-Anderson group is betting that an estimated 20,000 Detroit enthusiasts will increase enough to make up for the early deficits.

"Soccer has never reached the status of a truly major league sport in North America because of many factors, most important being proper financing," says the North American League brochure.



First of two parts

chance. "The North American Soccer League has the financial stability to make this long cherished dream a reality."

"Our program . . . will sell soccer to the sports public and create an eager interest in our league opening."

The backers intend to use every advertising and promotional gimmick available, and they have the money to do it.

But there are a number of problems. Foreign players, in some cases whole teams, are being imported on the theory that if the public were forced to watch a bunch of dubbers kick each other in the shins, interest would quickly disappear.

"We have the best athletes and facilities in the world," says Nick Krat, former MSU All-American and last fall's assistant soccer coach. "Unlike other countries we have all nationalities represented and eager to play."

Krat has signed with the Chicago Spurs of the National Professional League.

Although foreign players will dominate the game at first, Spartan soccer coach Gene Kenney estimates it will be five years before the sport is "Americanized" and a system of minor leagues is started.

Soccer's advantage over other beginning sports is that it will have skilled players competing at the onset. Training North Americans will be the major task, rather than learning the game anew.

Soccer is a fast game, with long shooting, much body contact, tight defenses and low scores.

"There is no danger of having too much pro soccer," a spokesman for the National Professional League said. "The future of the game is secure in this country. The day may come when our ball parks aren't big enough for soccer."

'S' VS. IU TONIGHT

Thor 'Gymnast of Week'

Dave Thor, junior Big Ten all-around champion, was named the NCAA Gymnast of the Week, prior to tonight's rescheduled meet between the Spartans and Indiana.

Thor's best all-around score, 54.45, leads the nation in that category. He's listed third in floor exercise at 9.30 and sixth in high bar.

He also holds Big Ten titles in floor exercise and side horse and was third in all-around at last year's NCAA Meet.

The high national finishes are probably attributed to Thor's outstanding performances against Southern Illinois two weeks ago. He scored 9.45 to finish first in vault, along with a winning 9.40 in parallel bars. Other scores

were 8.65 in side horse, 8.30 in trampoline, 8.95 in high bar and 8.70 in rings.

Toby Towson, the NAAU floor exercise champion, leads the national rankings in that event with a 9.45, scored in his first varsity performance against SIU.

Both men are doubtful starters in tonight's meet, at 8 in the Men's IM Arena. Snow forced cancellation of Saturday's contest.

Thor jammed his wrist three weeks ago against Ohio State, and is expected to work only trampoline. Norm Haynie will handle all-around. Towson is complaining of a sore knee, which kept him out of action in the Spartans' first two meets.



DAVE THOR
Receives another honor



By TONY FERRANTE

Spring: the deep-water lunkers offer a renewed interest while brookies just dare you to connect. Summer: bench rests, long range varmint shooting, sighting-in that '06. Fall: another locker full of venison, good times at the camp, grouse, pheasant, racoon.

Winter? So what's up? Now really. Use that woods sense you brag about so much to a dufter while dressing-out your white tail. Just look around, there's outdoor sport a-plenty.

Ice fishing is going full blast on frozen Michigan waters. Shanties are up, toes are cold, and fish are being caught.

Tip #1: Try late afternoon or on overcast days. It may be colder, but the ones who regularly fill their creels swear by it.

As for hunting, a quick glance at the small game digest tells the story. There's a number of species to be had. Cottontail and snowshoes can be taken throughout the state until March 1, and Gordon Zorb, game biologist at the Conservation Department's

Rose Lake station, informs me that rabbits are at an all-time high in this area.

This probably holds true statewide since Rose Lake is a pretty good barometer of general conditions.

In some zones, bobcat, woodchuck, and badgers are also fair game. Of course, certain so-called "trash" animals--coyote, fox, red squirrel, crow--can be taken any time; there's no closed season.

It's unfortunate that a few hunters don't appreciate these species, 'cause they make for some of the finest hunting in the state. Ever try stalking a fox? Good luck. - You'll need it.

Tip #2: Rose Lake officials note that there's very light hunting pressure on fox in that area, and a number of animals are "available."

The boring, indoor winter months need not be so. Why let that double gather dust on the rack? Your '66 small game license is still good, but the game is out in the woods, not down in the grill.

Furthermore, eating last fall's buck all winter can be monotonous. Try a change now--and then by filling yourself with a freshly killed hasenpfeffer.

BYO--Towels

Those participating in activities at the Men's I.M. are asked to bring their own towels through this week. There is a towel shortage due to the storm.

SUMMER JOBS IN THE ROCKIES

Over 2,000 job opportunities with resorts, dude ranches, summer camps, national parks, construction companies, oil fields, airlines, etc. shown in 1967 Rocky Mountain Summer Employment Guide. Also; how to get FREE transportation to these jobs and special information on summer stewardess jobs (U.S. and overseas). Only \$3, money back if not completely satisfied. Beat the rush, apply now!

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Interviews
William Ewing,
Personnel Director
Campus Interviews
February 2, 1967

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*See July 15, 1966 issue of FORTUNE Magazine



The official word

The official time for each swimming lane is registered by this device in the IM indoor pool office. An official stands by the machine to record the times during each swimming meet.

Pool equipped for big meets

By JOHN LADD
State News Sports Writer

The Men's Intramural Pool has been chosen as the site for the Big Ten and NCAA swimming Championships this year—and for a good reason. It is one of the best equipped and "fastest" pools in the country. The Big Ten's are March 2-4. The NCAA meet is March 23-25. The newest additions to the pool's facilities were largely prompted by the granting of the year's two most important swimming events. Automatic timers, large-size lane markers and higher backstroke grips were installed to make a good pool even better. The automatic timing system is capable of timing all six lanes to an accuracy of a hundredth of a second and pick places to a ten-thousandth of a second. The timers are started by an electrical device attached to the

starters' gun and stopped when the swimmer touches a large rubber plate at the end of each lane. The new hand holds for backstroke starts were installed this year to handle the new style start introduced last year by the Spartans' Gary Dilley. The traditional backstroke start is from a curled-up position with feet in the water and hands on a bar 24 inches off the water's surface. The start used by Dilley, Bob Wolf and Pete Williams is in a standing position with feet on the edge of the gutter. This position requires hand grips at the 30-inch level. The new lane markers are the latest step in a pool designed to reduce waves. A "flat" pool is a great advantage to swimmers, especially to breaststrokers and butterflyers. The new markers are made up of plastic perforated cylinders three-and-three quarters inches in diameter. These help level the water by dispersing the energy of the waves which flow through the perforations. There are other devices in the Spartans' pool which aid in keeping the water level. Careful control of the inputs keeps the water just at the height of the side gutters. The bulkhead, a movable platform that divides the swimming from the diving areas of the pool, is a perforated steel plate that allows waves to flow through and not bounce back at the swimmer as he comes into his turns. "It is the very fastest short-course pool in the U.S.," said Coach Charles McCaffree, adding that the excellent lighting system was another factor making for a good pool. "I don't think its possible to have too much light."

are just as generous as for the swimmers. All four diving boards are of fiberglass and aluminum construction, the "Duraflex" boards which have proved to be the best type for competitive diving. Two boards are set at the one-meter level, but the other pair are on hydraulic lifts and can be stationed at either one- or three-meter heights. Divers must be able to see the exact surface of the water to get the best possible entries. The clear water provided by the pool's pressure and filters would make this difficult if it were not for "bubblers". Four opening in the pool floor are connected to an air pump. The stream of bubbles rising from these keeps the water surface rippled and easy to determine. Careful temperature regulation is important to swimming. The rules require the water temperature to be kept at 76 to 78 degrees. However, proper ventilation must be provided to prevent hot, stuffy air from hanging near the water surface. Four ventilation ducts are angled to provide a constant flow of air close to the water's surface. Swimmers desire cool fresh air while they swim, but divers must find a warm spot to keep them from getting chills between dives. For this reason, locker room K will be used during the championships as a divers "hot room."



Electronic judge

A Spartan swimmer touches home on the rubber plate, part of a newly installed electronic timing device, used to judge swimming races. State News photo by Paul Schleif

BESSONE LAMENTS

All went wrong for skaters

By JOE MITCH
State News Sports Writer

It was one weekend hockey Coach Amo Bessone would like to forget. His Spartan skaters had what he described as "a miserable weekend all the way around" in Duluth, Minn., where the Duluth Bulldogs swept a two-game series from the MSU squad. Everything bad that could happen to the Spartans happened during a weekend that left them with their second series loss of the season. The double defeat dropped them one place lower to the bottom of the Western Collegiate Hockey Assn. (WCHA) standings—to seventh place with a 4-9-1 record. Overall, the Spartans are 7-12-1. "I guess all the traveling we've done lately just caught up with us," Bessone said Monday after his team returned from Duluth Sunday night. "We were tired, but we didn't

really feel it until Saturday night. We played a good game Friday night, considering we arrived that night in Duluth, but we just didn't have it Saturday night." The Spartans were beaten in overtime, 6-5, with just one second remaining. The next night, Duluth poured in four goals in the third period to break a 3-3 tie and score a 7-3 win. "Our main trouble was that we weren't picking up the puck on rebounds," said Bessone. "We were overskating the goal. "And too, our power play wasn't working. In fact, we don't have one. We've got to do something about that." Bessone referred to the fact that in the second period of Saturday night's game, Duluth had six penalties while MSU did not have one. Yet, the Spartans were only able to score one goal. "As I said, Duluth is tough at home," said Bessone. "Skating-wise they were as good as

I expected. They didn't play, dirty' hockey." The Spartans had difficulty in traveling to Duluth, as well as having their troubles playing the Bulldogs. Because inclement weather cancelled their plane flight, they took a train to Minneapolis and a bus from there to Duluth. The trip totaled 34 hours, beginning Thursday morning and ending Friday night. "Once we arrived we were right on the ice," said Bessone. "But we didn't start the game

until 8:35 (the game was scheduled to start at 8). We arrived without our equipment and they had to fly it in from Minneapolis." On the return trip home, the Spartans missed their scheduled flight and had to make another flight connection. The Spartans skaters are at home on the Ice Arena this weekend, meeting the cellar team of the WCHA Minnesota. The Gophers split a two-game series with Michigan Tech last weekend.

Duffy still plugging NCAA grid playoff

BOSTON (UPI) -- Michigan State Football Coach Duffy Daugherty Sunday repeated his opposition to polls in selecting the nation's top team and stepped up his campaign for national playoffs. "The national poll just can't work right. How many of the guys voting have seen all the teams? "Every sport can determine a national champion except football. And it can be done in football. There's a study committee on it now to present a format to the NCAA. "Take the top eight teams. Yes, including the independents. Have four games on the last Saturday in November and use the first and second Saturdays in December for the semi-finals and finals. Then you have a real national champion," Daugherty said. Daugherty, visiting the Kodak Coach Of The Year Clinic, added, "I believe that if this goes through, the games should be played on a college campus and

the receipts could be split among all the major colleges. "See, that way everyone would benefit and it wouldn't interfere with the bowls at all. The Bowls are keeping some people from giving this a positive approach, but it wouldn't interfere with them at all," he said. Notre Dame's football team was chosen No. 1 in the UPI ratings last year with Michigan State second, even though the two battled to a 10-10 tie.

Intramural News

All fraternity volleyball scheduled for today has been postponed until Feb. 28 due to the gymnastics meet tonight. There will be a meeting for anyone entered in individual I.M. swimming at 6:30 p.m. Wednesday at the indoor pool office. Anyone interested in entering the event may do so at this meeting. All handball teams still in the I.M. tournament should contact the Men's Intramural office to schedule their next opponent.

- MEN'S Basketball**
Gym I Court 1
6:00 Arsenal - Aristocrats
7:00 Akarpous - Akcelisior
8:00 Emerald - Embers
9:00 Manor Men - Tetrahedrons
Gym I Court 2
6:00 Winshire - Windjammer
7:00 Muters - Shadows
8:00 Bacchus - Balder
9:00 Farm Equip II-Elev I (SC)
Gym II Court 3
6:00 Cabana - Cavalier
7:00 Empowerment - Empyrean
8:00 Montie - Bower
9:00 Eminence - Emperors
Gym II Court 4
6:00 Windsor - Wight
7:00 Hornet - Horror
8:00 Thunderchickens - Botany
9:00 Akhilles - Akbarama
Gym III Court 5
6:00 Wordsworth - Wolfram
7:00 Hubbard 10-8
8:00 Howland - Hedrick
9:00 McLaine - McNab
Gym III Court 6
6:00 Casino - Carthage
7:00 Hubbard 12-9
8:00 Abortion - Abdication
9:00 Elm St. Gang-A.S.C.E.

- Hockey**
Time
8:15 Hornets-Armstrong
9:00 Impressions-Hubbard
9:45 Fee-AWAS
10:30 Loads-McDonel
- Bowling**
ALLEYS TIME
6:00
1-2 East Shaw 1-4
3-4 Bacardi-Bardot
5-6 House-Holy Land
7-8 Brannigan-Brougham
9-10 Abundantia-Abudweiser
11-12 West Shaw 8-3
13-14 EMU-Embassy
- Alleys Time 8:30**
1-2 Sultans-Spyder
3-4 Fee-Males Fenrir
5-6 Brandy-Brinkley
7-8 Archdukes-Archaeopteryx
9-10 Baal-Bawdiers
11-12 HoNavel-Hob Nob
13-14 Wilding-Wivern
- WOMEN'S**
Sorority Basketball
Upper Gym Court 1
7:00 Kappa Kappa Gamma vs. "Gamma Goodies"
7:40 Delta Gamma vs. "Tri Delt Bats"
8:20 Alpha Omicron Pi vs. Pi Beta Phi
Court 2
7:00 Chi Omega vs. Kappa Alpha Theta
7:40 Alpha Xi Delta vs. Delta Zeta
8:20 Alpha Phi vs. Alpha Chi Omega

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Pistons buy Hightower

DETROIT (UPI) -- The Detroit Pistons, desperate for help at forward after losing Ray Scott in a trade mix-up, bought journeyman Wayne Hightower Monday from the Baltimore Bullets. The 6-9 Hightower has averaged 6.9 points this season as a Bullet substitute, the same role he probably will fill for the Pistons, General Manager Edwin E. Coil said. Hightower was picked up in a straight cash deal. Coil said Hightower, a National Basketball Association player for three and a half seasons, will report for tonight's game against San Francisco in New York.

SNOW shouldn't keep you from going to the
MSU SKI CLUB MEETING TONIGHT!
after all, that's what it's all about.
Plans for the Feb. 11 & 12 weekend trip to Boyne
Ski movie "ASPEN POWDER" By Warren Miller
100 Engineering Bldg.
7:30 TONIGHT

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Age, retirement topics of seminar

By RON ROAT
State News Staff Writer

What does a man do when he reaches 65? Does retirement mean the end of a man's benefit to his society? Michigan State and the Oliver Wendell Holmes Assn. have teamed up to attempt to provide some answers to these questions in a course entitled "Alternatives for 20th Century Man."

The MSU Evening College, under a grant from the Holmes Assn., has invited men from universities and the major professions to a two-week seminar. All those invited have either retired recently or will do so in the next five to ten years.

"The Oliver Wendell Holmes Association is interested in helping universities provide conferences and courses for the retired or for men that will soon retire," said Robert E. Sharer, director of MSU Evening College. Sharer said that this seminar is an experiment by the Association. Other similar courses have been attempted in the past, but nothing like the MSU course has ever been offered.

"Universities across the coun-

try are watching us," Sharer said. "The interest in this sort of thing is growing and success here would be a boost for other universities."

MSU is bringing some of the top people in the country to speak at the seminar, Sharer said. Kirtley F. Mather, professor emeritus in geology, Harvard University, and present president of the Holmes Assn., will give the keynote lecture entitled "Four Billion Years of Pre-History." He will also speak the second day of the conference on "Man and His Environment."

J.T.F. Iyalla, an ambassador to the United Nations from Nigeria, will speak on "One World?" the third day of the seminar.

Evening College is also inviting 13 MSU faculty to lecture at the seminar.

LeRoy Augenstein, chairman of the Biophysics Dept., will speak on "Genetic Dilemmas." Robert L. Green, Dept. of Counseling and Personnel Services, will talk on "Separate and Unequal." Werner A. Bohnstedt, professor emeritus, Dept. of Humanities, will give a talk entitled "Anomie, Anonymity, Alienation."



When there's no man around . . .

at least the lady had a snow shovel she could use to rescue her car from a city parking lot on Albert Street. State News photo by Larry Fritzman

Draft test given here

Selective Service College Qualification Tests will be given again this year at Michigan State during March and April.

The tests will be given on March 11 and April 8.

Eligible students who intend to take this test should obtain an application card and a bulletin of information for the test at 207 Student Services Building.

According to the Educational Testing Service, which prepares and administers the College Qualification Tests for the Selective Service System, it will be greatly to the student's advantage to file his application as soon as possible. By registering early, he stands a better chance of getting his first choice of a test site and date.

Scores will be sent directly to the registrant's local board and will be taken into account on his classification.

AVIAN ANATOMY LeNeil honored for illustrations

Raynard N. LeNeil, a biological illustrator for the U.S. Dept. of Agriculture's Avian Anatomy Project here, has been elected a member of the Assn. of Medical Illustrators (AMI), a select organization of only 200 members.

For the past three years, LeNeil has prepared illustrations of the anatomy of chickens and other domestic birds to be used in reference books published by the Agriculture Research Service.

The AMI is an international organization of medical illustrators who prepare drawings, charts and photographs of bones, muscles and other body organs used in various textbooks, medical journals and exhibits.

Outsiders viewing lower income families may draw an erroneous conclusion about them,

FACULTY FACTS

says an associate professor of social work in her recent book, "Where Hannibal Led Us."

Myrtle R. Reul said the reason for this error is "because they (the outsiders) do not understand the culture." Upper-income families base their views on their own standards and values. People in upper-classes feel that lower-class individuals have no conception of the future.

This is not true in most cases, said Mrs. Reul. "Appraising their situation, they realize work in the future is limited. Most migrant farm workers do not want their children to follow in their footsteps," she said.

Mrs. Reul and her husband lived and worked as low income migrants to gain "information to teach graduate students in social work to better understand some of the clients with whom they deal."

Arthur J. M. Smith, professor of English and poet in residence, has announced the publication of his third edition of "Seven Centuries of Verse," a poetry anthology.

Smith said the book has been revised and expanded.

PROGRAM INFORMATION ▶ 462-3905

MICHIGAN Theatre

TODAY: at 1:00 - 3:05 - 5:15 - 7:25 - 9:40 P.M.

TOMORROW: LADIES' DAY Only 50¢ from 1:00 to 6:00 p.m.

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Placement Bureau

Students must register in person at the Placement Bureau at least two days prior to the date of interview.

- Monday, Feb. 6:
- American Oil Co.: chemical engineering (B,M,D) and civil and mechanical engineering (B, M).
 - American Oil Co. and AMOCO Chemicals Corp.: chemical engineering (B,M,D) and chemistry (M,D).
 - Anaheim Union High School District: mathematics, science, art, English, music (vocal and instrumental) and special education (B,M).
 - Battle Creek Public Schools: early and later elementary education, art (special teacher), camp teachers (men-Clear Lake Camp), Special education, mentally retarded and nursery, physically handicapped, English, English/social studies and business education (shorthand and vocational stenography) (B,M).
 - Claremont Unified School District: elementary and secondary education (with academic majors) and special education (B,M).
 - Cutler-Hammer, Inc.: electrical and mechanical engineering (B).
 - Dow Corning Corp.: chemistry and chemical engineering (B,M,D), physics, chemical, mechanical and electrical engineering, accounting, marketing and economics (B,M).
 - Green Giant Corp.: accounting, economics, management, marketing and transportation administration and all majors of the colleges of Arts and Letters, Business, Communication Arts and Social Science (B,M).
 - Long Beach Unified School District: early and later elementary, outdoor education, mentally retarded, deaf and hard of hearing, educationally handicapped, emotionally disturbed, speech correction, industrial arts, mathematics and girl's physical education and reading (B,M).
 - Midland Public Schools: early and later elementary education, art, physical education, music (vocal), English/social studies, English, mathematics, science, French Spanish, German, history, government, economics, business education, industrial arts, mentally retarded, emotionally disturbed and visiting teacher (B,M).
 - Rowland School District: early and later elementary education, industrial arts, home economics, mathematics, mathematics/science, language arts, social science and art, music (vocal), language arts or social science (any two in combination, educable mentally retarded, educationally

- handicapped, reading specialist, and nursing (RN) (B,M).
- U.S. Civil Service Commission: all majors all colleges.
- The Upjohn Co.: biology, zoology, physiology, pre-medical, pre-dental and chemistry (B,M), Monday-Tuesday, Feb. 6-7.
- Abbott Laboratories: chemistry and chemical engineering (B, M), pharmacology (D) and microbiology (B,M).
- Eli Lilly and Co.: biochemistry and chemistry (analytical) (B,M,D), chemistry (organic) (B, M), microbiology (B,M,D), mechanical and electrical engineering (B), chemical engineering (B,M), marketing (M), pharmacology (M,D), plant pathology/physiology (B,M,D), accounting and financial administration (with accounting background), mathematics (B,M), entomologist, agricultural economics, animal husbandry, crop science, poultry science, soil science, horticulture (B,M,D).
- Civil Service Commission of Canada: anthropology, geography, agriculture, human medicine, natural science and veterinary medicine (B,M,D) and all majors of the College of Engineering (M,D).
- Swift and Co.: hotel, restaurant and institutional management (B,M), electrical, mechanical, civil and chemical engineering, chemistry, and mathematics (B), agricultural economics (B, M), animal science, agronomy, poultry science, dairy manufacturing and all majors of the colleges of Business, Arts and Letters, Communication Arts and Social Science (B) and economics (M).
- Touche, Ross, Bailey and Smart: accounting, mathematics, and all majors of the College of Engineering and Science (B,M, D).

SUMMER EMPLOYMENT

Monday-Tuesday, Feb. 6-7:

- Eli Lilly and Co.: Juniors and above in biochemistry, chemistry, microbiology, mechanical, electrical and chemical engineering, marketing, pharmacology, plant pathology/physiology, accounting, financial administration, mathematics, entomologist, agricultural economics, animal husbandry, crop science, poultry science, soil science and horticulture.

LAST 2 DAYS! PROGRAM INFORMATION ▶ 332-6844

CAMPUS Theatre

Feature at 1:00-3:05 - 5:15 - 7:20 - 9:30

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PROGRAM INFORMATION ▶ 487-6488

GLADNER Theatre

TODAY: From 1:00 P.M. TOMORROW: LADIES' DAY

Feature at 1:10 - 3:15 - 5:20 - 7:20 - 9:30

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"BREATHTAKING!" -Newsweek
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NEXT- "WARNING SHOT"

China's army is pivot

(continued from page one)

Asked about the struggle's effect on U.S. China policy, Fishel said:

"I don't think that there is anything that we can do to influence this process of fission at this time. We have no way of knowing what course of action the winning group will take with regard to the U.S. or the rest of the world."

Communists that take a different approach: that of moderation. Singh believes that the Sino-Soviet split is a crucial element in the current ideological struggle.

Many Chinese in their 50s, those a generation younger than Mao who took part in the revolution and have assumed top positions in the party and government, "are beginning to wonder about the wisdom of China going it alone," he said.

ever occurred in other Communist countries, he said. Mao's latest ideas, Singh believes, did not win a majority in the party's central committee. Consequently Mao was forced to tap a new source of power, the Red Guards, to silence his opponents, he said.

Singh said that in places it appears as if Mao's strategy has backfired. The Red Guards, he said, have been immature and irresponsible.

Singh said that the party split may involve many factions. He thinks, however, that the main struggle involves a three-way contest for power between Mao, Defense Minister Lin Biao and President Liu Shao-chi.

Fishel said that what we are witnessing in China today is a "deliberate and systematic re-generation of a political faith."

Singh offered two interpretations of China's current unrest. One, primarily economic, concerns Mao's desire to maintain rigid doctrinaire control, essentially to ask the people to make more sacrifices, he said.

Another explanation of the current crisis, Singh believes, is that every 20 years or so revolutions have a tendency to chart a new course because conditions have changed and the older revolutionaries are no longer in tune with the times.

Initially, Singh said, they supported Mao in the split with Russia, but now they have become aware of the extensive damage that the withdrawal of Russian aid has done to China's economy.

Singh believes that the factions opposing Mao have come to face reality. They realize that China's resources are limited and that valuable Russian aid is now going to other countries such as India, instead of China, he said.

Lin, normally considered pro-Mao, apparently hesitated to use the vast army that he controls to influence the struggle. However, Singh said that there is a tradition not to use the army in intraparty disputes. "For one thing its professional character could be seriously jeopardized," he said.

Singh believes that Communist China's old ideology is no longer able to cope with the process of socio-economic change and the new scientific age that it itself created. This aspect of China's present ideological struggle, he said, has parallels with circumstances in Russia during the 1930s.

"There is considerable unrest in the country," Singh said.

If Mao desires China to become a super power within his lifetime and if he believes that it must be accomplished without outside aid, then he cannot afford to weaken his ideology, Singh said. China, with its limited resources, will never make it if the country's revolutionary fervor slackens, he said.

Singh said that there are, however, equally dedicated Chinese

Mao's nuclear development program also has been an enormous burden on China's economy, Singh said. It has proved that the Chinese are capable, but 2,500 scientists, a valuable resource in a developing nation, have been diverted from other important work, he said.

Singh said that the move to bypass regular party apparatus by settling party disputes-- Mao's use of the Red Guards-- is unique. Nothing like it has

STATE NEWS

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Renovations on the way

Left and above are two of the five houses in Lansing that MSU fraternity men and sorority women will work on in their annual community service project in May. The houses are located near I-96 highway. State News photos by Paul Schief

Greeks plan community aid

Planning begins tonight in the Union for this year's community project for Greek Week. Open rush will be held for the May event for the more than 5,000 Greeks at MSU. At least 800 volunteers are needed for the project by the Martin de Porres Housing Committee, a non-profit Lansing corporation. Greeks will be able to petition tonight to work on the committee, co-chaired by Janet Bufe, Wyandotte junior; Dave McGraw, Bloomfield Hills junior; and Al

Rose, Rochester, N.Y., sophomore. Already planned is the painting of five houses presently leased by the committee. Most of the dwellings house two families each and one houses a family of 14 children. Volunteers last year converted unused nurses' quarters at the Howell State Hospital for the Mentally Retarded into a day-care center for children. About 250 Greeks representing 37 houses participated in the

project. Rotating groups went to the hospital located 40 miles southeast of Lansing to provide a playroom for the 374 mentally disturbed children.

City resumes mail service after snowfall

East Lansing continued to recover from the weekend's 24-inch snowfall Monday with some new problems cropping up. "Our biggest problem now is sightseers driving around and congesting the streets," reported John Patriarcho, East Lansing city manager. He added that many cars are still abandoned in the snow and cars that were rescued and are now parked along the main streets also cause problems for the snow removal crews. "We haven't started ticketing yet but we may have to," said Patriarcho. Mail delivery ran up to five hours late Monday with East Complex receiving its usual 9:30-10 a.m. mail at 2:30 p.m. Men from Brody complex met the mail truck at noon and brought the 4-hour late letters in themselves. All other dormitory groups got mail about an hour off schedule. "We're making every effort to deliver the mail as soon as possible," said A. Ray Krider, East Lansing postmaster. "When the roads are all clear, we should be back to normal." Krider added that only a few trucks were in use and most of downtown East Lansing's mail was delivered by foot carriers.

IFC hearings continue in SAE, pledge case

By BOBBY SODEN
State News Staff Writer

Interfraternity Council (IFC) will continue today closed hearing in the case of a fraternity pledge who was severely burned in a "hell week" game three weeks ago. Larry Owen, president of IFC, said Monday that the council may not reach a decision until early next week on the incident in which Joseph A. Bonus, Detroit junior, received acid burns while participating in a pledge relay race at Sigma Alpha Epsilon (SAE) fraternity. Bonus will be asked to testify this week, but has not yet been contacted, Owen said. Bonus withdrew from MSU last Wednesday for the remainder of the term. SAE president Craig D. Cowell, Royal Oak junior, appeared before the council Thursday, Owen added. Other pledges and witnesses will testify this week.

who will be charged and what the exact charges will be. Burdick represents the law firm of Burdick, Burdick, Silverstein and Burdick of Detroit. It has been speculated that charges may be filed against either the University, the local chapter or national SAE fraternity or the individual who actually burned Bonus. That individual has not yet been identified. Bonus was burned during a pre-initiation game at the fraternity when a member placed on his neck a towel drenched in what apparently was a chemical varnish stripper. Fraternity members said that the chemical stripper, which had been used earlier that week to revarnish the fraternity's foyer, was reactivated by water on the floor. Cowell, SAE president, said that the towel was a "preventative measure" to keep Bonus from seeing side to side during the game. He called the incident a "complete accident."

Following the first hearing Thursday afternoon, an IFC spokesman said that fraternity officials would make no further comment on the incident until the investigation was completed. Bonus's father, P. Paul Bonus, indicated last week that he would take legal action on the incident. He said that his son will sign a formal complaint at the East Lansing Police Dept. Irwin Burdick, the attorney handling the suit, said Monday that he is waiting until the police and the University finish their investigations before deciding

With the money we are spending in Vietnam we could give every teacher in this country a 10 per cent raise; we could give \$10 million to 200 small colleges and universities; or we could revamp our medical education program, which is producing fewer doctors each year, Adams said. "There is a high price we pay for being a garrison state," Adams pointed out. The longer the war lasts, the stronger will be the growth of right wing extremists, he said.

FINANCIAL, POLITICAL EFFECTS

Econ prof., Staebler debate war

By KURT HAHN

Nell Staebler, Democratic national committeeman, and Walter Adams, MSU professor of economics, gave some answers to the question "What is the war doing to us in the domestic socio-economic world?" Sunday evening. Staebler said that money spent on foreign aid in the past might have prevented the Vietnamese war and money spent now might prevent future problems of a similar nature. Adams presented the argument that the funds being poured into Vietnam might be better spent in this country.

--The Gross National Product is \$785 billion.
--Federal education spending is \$3 billion yearly.
"We are spending nearly 10 per cent of our GNP for defense and over three per cent of the GNP on Vietnam alone," Staebler said. "It's easy to see that we spend whatever is necessary on defense but are more reluctant to spend for domestic improvements."
"We have spent an amount almost as large as the dollar value of the entire country on defense since 1946. By spending much less on welfare and education, we have reduced poverty by nearly 75 per cent since 1930, he continued. We might do better to help underdeveloped nations develop capital for improvement through increased foreign aid, than to continue our increasingly ex-

pensive defense costs, Staebler stated. "Lack of foresight is what makes these huge defense costs necessary. If we increase aid and solve problems before they lead to conflict, we will be far better off," Staebler said. Adams, as the respondent, approached the problem from the pragmatic point of view of the economist. "I am not a pacifist; I am not

a moralist; I am an economist; and as such I will present to you the cost of the war and what that represents in terms of alternative accomplishments," he began. Economics is the study of scarcity. It shows what alternatives exist, not what choices should be made, he explained. We cannot have both the war on poverty and the shooting war in Vietnam without either a tax increase or inflation, Adams said.

The men spoke at the fourth session of the Interfaith Convocation on War and Peace at St. John's Student Center. Staebler began his talk by giving figures designed to give an idea of just what the war is costing. He said: --The current yearly cost of the war is \$25 billion. --The current total defense budget is \$73 billion.

Classroom changes

Tuesday classes whose meeting places have changes due to Farmers' Week activities are, with their meeting times and new locations:

AGRICULTURE			
ANS 525-901	11:30	TUP	
FSC 405-1	10:20	136 EB	
SLS 56-1 S			
SLS 331-1	11:30	110 BH	
Dairy 006 1-4	1:50	223 NR	
ARTS & LETTERS			
ENG 380-901	10:20	Fairchild Theater	
ENG 816-1	10:20	108 BH	
HST 101 1-15	9:10	AUD MB	
HST 121 1-30	9:10	Fairchild Theater	
HST 122 16-30	11:30	137 AKR	

HST 334-1	10:20	137 AKR	NATURAL SCIENCES		
ROM 351-1	10:20	29 HUB	GLG 201 1-5	11:30	102 CB
BUSINESS			MTH 215-5	11:30	219 BH
AVA 301-1	12:40	122 BH	MTH 341-1	11:30	212 CC
EC 200-1	1:50	100 VC	STT 121-901	11:30	100 VC
EC 200-2	11:30	AUD			
EC 200-3	9:10	111 OH	SOCIAL SCIENCES		
EC 201-1	10:20	AUD MB	PLS 201 1-301	11:30	101 NKH
EC 305-2	12:40	226 EH	PLS 260 1-6	10:20	128 NS
EC 320-1	10:20	19 FB	SOC 241-2	9:10	137 FEE
MTA 300-90	12:40	Fairchild Theater	SOC 351-2	11:30	105 HLM
			PSY 200-2	12:40	AUD
					WIL

COMMUNICATIONS			UNIVERSITY COLLEGE		
JRN 430-1	10:20	216 GH	ATL 111-16	12:40	115 EBH
EDUCATION			ATL 112-2	11:30	226 EH
ED 312-2	10:20	132 EH	SS 232-27	10:20	102 MCD
ED 327-901	1:50	114 EBH	SS 232-48	1:50	102 CB

Free U. talks open to all

Anyone interested in joining the Free University group discussions is welcome to come, said Michael Lopez, one of its original organizers. Each week Free University holds discussion on "Black Humor," fictional works, and aspects of current events. "If someone has read a book we plan to discuss, he is more than welcome to contribute to the group," Lopez said. This week's program will include a special event with Chitra M. Smith, lecturer in Social Science, discussing "Growing up Absurd," by Paul Goodman. The discussion will be held 4:30-5:30 Tuesday in classroom Wilson Hall.

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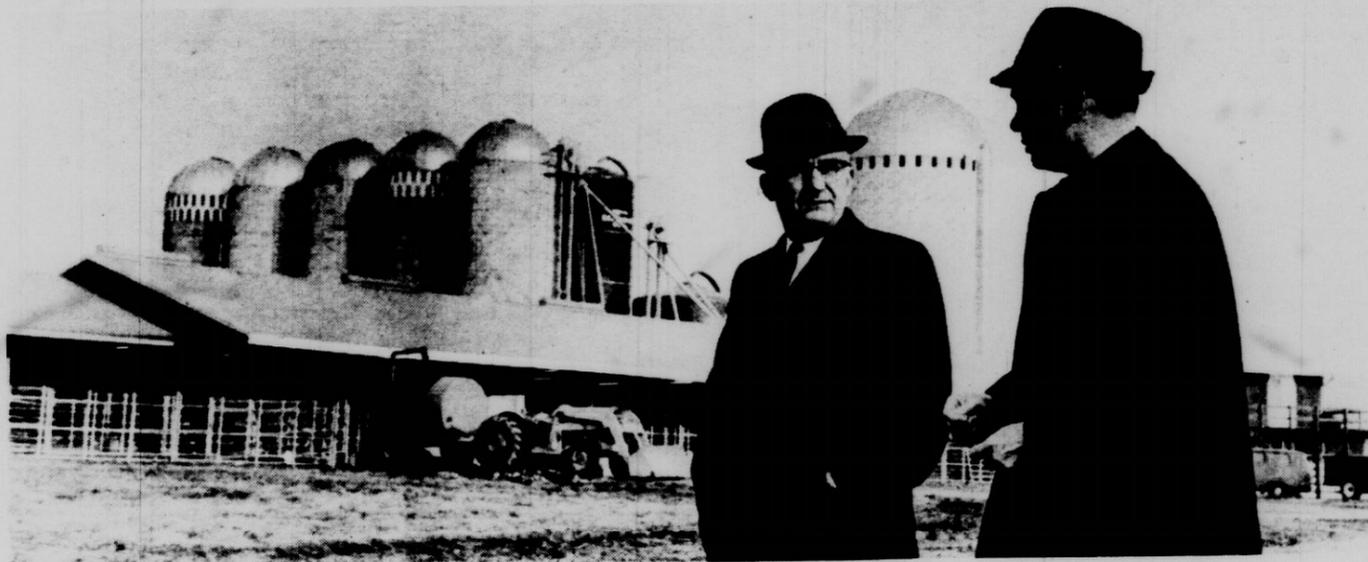
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February 3,

STANDARD BRANDS INCORPORATED

Farmers' Week 1967



Every day
busy one
for visitors

Principals in programs

The two leading figures in the 52nd Annual Farmers' Week are shown checking one of the principal locations for programs this week, the Beef Cattle Research Center at Bennett and Beau-

mont roads. They are Thomas K. Cowden, dean of the College of Agriculture and Natural Resources, and Byron Good, professor of animal husbandry and Farmers' Week chairman. Photo by Dave Laura

TIMELY THEME

'Food for a Hungry World'

Farmer's Week helps emphasize the increasing need to realize the world food problem and the need for a concrete plan to solve this problem, which is rapidly approaching crisis proportions.

This year's theme, "Food for a Hungry World," is an indication of growing concern over the production of sufficient food to supply the rapidly growing world population.

"The world population is at present growing at a rate of 65 million people annually. This means that a number almost equal to the population of the entire United States is added each third year," said Georg Borgstrom, professor of food science at MSU in his book, "The Hungry Planet."

"Furthermore, the battle against death has been advanced victoriously in all areas of the world, including the underdeveloped part," he said.

Borgstrom said that the world is actually split into two camps, one with a billion people who lack very little in the realm of foodstuffs and the other composed of two billion people who are undernourished.

"The protein intake, be it plant or animal, remains the most reliable way of measuring nutritional standard," he said.

"The proteins are the key compounds. It is more than coincidence that during recent decades, protein deficiency diseases have come to prevail in most continents and must be regarded as the chief nutritional deficiency of the world," says Borgstrom.

He said that the United States alone disposes as much primary protein (plant protein) as a number of poor countries like India, China, Indonesia and Ceylon, taken together, have to be satisfied with.

Borgstrom said that the food shortage problem must be put

in context with the population explosion.

He said, "There is now growing evidence of better understanding of the need for universal birth control."

"Planned parenthood on a global scale that really reaches billions is a formidable challenge to public education and mass media," he said.

Some chemists claim their research in synthetic food production will ultimately free humanity from the scourge of hunger.

Borgstrom in disagreement said, "It is certainly not sufficient to be able to synthesize certain essential substances. They must also be given the special molecular structure which allows them to function in the complicated metabolism of the body."

Contrasting with Borgstrom's pessimistic view point are various scientific programs desperately seeking a solution to the

problem of world food production.

The areas of research and planning include the study of fertilizers, soil, and plant food for future application.

"Of the various technical factors, increased use of fertilizer offers the best possibilities for a quick increase in agricultural production," said Raymond Ewell, vice president for research at the State University of New York at Buffalo.

After an experiment including 9,500 demonstrations in 14 countries Ewell said, "There can be no manner of doubt that when farmers in developing countries use fertilizers, even without other improved farming methods the results will be good. The average response to the best, most economic, treatments for all countries, crops, and seasons was a 74 per cent increase in yield."

MSU has also done substantial work in the area of food production research. New food products are "quick" blue cheese, "instant" pea and bean soup, improved meats, and new varieties of fruit.

The soups, made from powdered peas and beans become substantial foods by merely adding water. They offer possibilities as low cost additions to the diets of several underdeveloped countries.

Another area of MSU research is the problem of pests and pesticides. MSU has created a Pesticide Research Center for such research.

There are many other programs in addition to these mentioned. All are working toward solution to the crisis which faces the world in decades to follow.

MSU plays a prominent role in today's agriculture--in planning for the national and world needs of the present and the future.

'U' Farmers' Week boasts long, colorful background

This year's Farmers' Week, the 52nd, extends a colorful and rapid development.

The week's foundation was laid out in 1873-76 with the new Michigan Livestock Breeders and Feeders Assn. and with the Michigan Agricultural College's (MAC) Farmers' Institutes.

Farmers' Institutes were held by MAC in 1876 in a few selected Michigan counties to discuss agricultural problems. In 1895-96 over 70 institutes were held around the state with 96,000 farmers and wives attending.

MAC played host to a Farmers' Institute Roundup, in 1898 at the college with persons from 47 counties attending. Gov. Pin-

gree, state officials, Robert Gibbons, editor of the Michigan Farmer, and outstanding farmers gave more than 40 talks on farm and home topics.

In 1906 the Michigan Livestock Breeders and Feeders Assn. held its annual meeting at MAC.

In 1914 the Farmers' Institute Roundup and the Michigan Livestock Breeders and Feeders Assn. combined their annual meetings to form the first Farmers' Week.

Participants attended lectures in soils, crops, dairying, livestock husbandry, horticulture, poultry raising, farm mechanics, domestic science and domestic art.

The first Farmers' Week meetings were held in the auditorium of Agriculture Hall. In the 1920's Demonstration Hall was used for improvement displays and exhibits. Since then Farmers' Week activities have moved to every area of the campus.

The methods of presentation of agricultural information at Farmers' Week have changed considerably since 1914. There were movies in 1917, TV in 1952 and electronic computers in 1963.

The topics of Farmers' Week programs have changed also. The latest include atomic energy, automation, computer use and international forums.

Everyday is busy for Michigan farmers attending MSU Farmers' Week. The farmers and agribusiness leaders of Michigan will base discussion of their problems and challenges on the theme of "Food For A Hungry World."

Programs are scheduled for all types of farming and special youth and women's events are also planned, all under the direction of General Chairman Byron Good.

Monday, Traditional Dairy Day, will open the week with breed association meetings and a dairy banquet. "Dairy Research in Action" will be shown at the research and teaching dairy center.

Tuesday will feature a luncheon in connection with sugar beet day at the Kellogg Center where distinguished service to agriculture awards will be presented to Frank Helm, Jackson dairyman; O.E. Herkner, Traverse City fruit grower; and R.W. Peterson, Lakeview dairyman and potato grower.

Morning and afternoon sessions will be held by all major departments including homemakers' and youth programs; engineering for modern agriculture; beef cattle breed association; sugar beet day; fresh market vegetable production; Christmas tree growing; egg producers' session; open, covered or warm dairy housing; estate planning and retirement and insect problems. There will be a Michigan tree growers banquet in the evening.

Wednesday the public is invited to attend John Furbay's special evening lecture concert, "The Sky's the Limit." During the day there will be more sessions by all the major departments including growing quality fruit; water use and supply; group action in milk marketing; top yields of soybeans and small grain; shooting pressure management; lookout for labor; profit with sheep; growing top yields of corn silage and mushroom production.

Michigan professional dairy farmers, Michigan milk farmers and the state 4-H Council will hold luncheons. Banquets will be held for short course alumni; agricultural engineering; mushroom industry and Michigan Allied Poultry Industry, Inc.

Thursday, The Farm Management Banquet at Kellogg Center will feature special guest speaker Paul Miller, former director of the MSU Extension Service, president of West Virginia University and now assistant secretary of Health, Education and Welfare in Washington D.C.

The day's events will include a flower show; tour of the Packaging School; dollars and sense in dairy nutrition; the swine enterprise; field bean day; po-

(continued on page 8)

New Poultry Center set for visits

Progress is the watchword at the new 11-building Poultry Science Research and Teaching Center on the MSU campus. Opened last June, the \$400,000 research center is perhaps the finest facility for poultry research and teaching in the country.

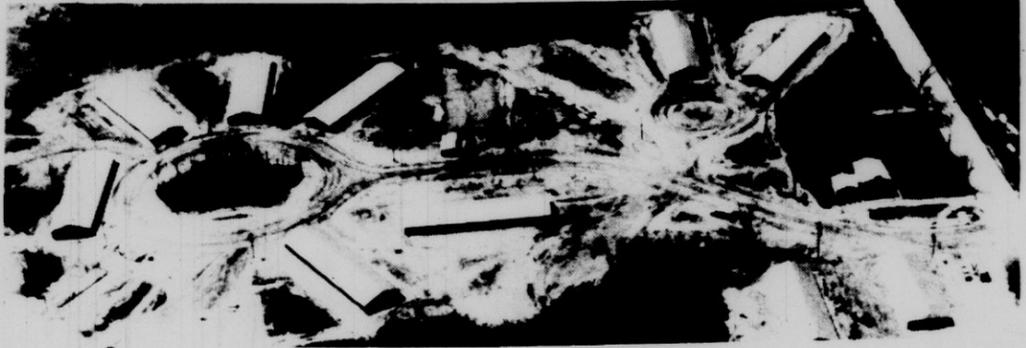
The new center will be the site for all poultry educational programs in connection with Farmers' Week. The topic of discussion in the classes will range from present research programs to methods of lowering costs. Also, some insight to the future of the Michigan poultry industry will be given.

The buildings are designed for versatility and economy. They are usable for research with ducks, mink, quail, turkeys and laying hens while being a poultryman's guide to low-cost housing. Research control requirements call for a few extras in construction but the farmer could get by with less.

All of the over 10,000 birds at the research center will spend their entire lives indoors. This will eliminate theft, disease spread and unevenness in test birds. Also the insulated and ventilated buildings pay in increased production.

The center is researching many areas of poultry problems. In the area of nutrition food-stuffs, amino acids and drugs are being tested to increase production. Experiments in physiology are concerned with fertility, high blood pressure and housing and management. Here it was found turkey meat production increases if turkeys are raised in cages.

Experimentation in genetics is bringing breakthroughs in decreasing egg spots, increasing egg production, increasing the size of the eggs, lengthening poultry life span and increasing meat production. The Japanese quail on the farm are par-



New attraction

An attraction involved in Farmers' Week activities for the first time this week is the new \$400,000 Poultry Research and Teaching Center. The complex of nine windowless buildings was dedicated in June.

ticularly useful in genetic studies. These birds have a short regeneration period, reproducing only 60 days after birth.

Experiments in insecticides are also in process at the research center.

At present, the major project is the investigation of the fatty liver syndrome in turkeys. Fat infiltrates the liver causing it to rupture. As a result the bird dies from internal bleeding. Research in the fatty liver syn-

drome has a dual importance in that it is a human problem too.

A breakthrough of great significance at the research center has to do with the controlling of aortic rupture in turkeys. This condition due to high blood pressure is solved by the use of tranquilizer treated feed. Discoveries in housing and nutrition have shown that ventilation pays in increased production and have shown the zinc and manganese requirements of the birds.

The future looks very bright for the Michigan poultry industry. Today the state produces only 50 per cent of the eggs, half the turkeys and only one per cent of the broilers it consumes. By 1980 it is expected Michigan will produce 75 per cent of the eggs it consumes plus increased percentages in the other fields.

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52nd Anniversary Farmers Week

Monday, January 30th thru Friday, February 3rd



Beloit, Wisconsin

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Two additions underway on plant lab

Two new additions to the \$2.7 million Plant Science Laboratory, which houses the Atomic Energy Commission and the Plant Research Laboratory, are underway.

An addition to the Plant Research Laboratory will contain research facilities to enable studies to be carried on from basic plant research to applied phases of plant pathology, according to Donald J. De Zeeuw, assistant chairman of the Botany and Plant Pathology Dept. The wing will be under construction in the near future.

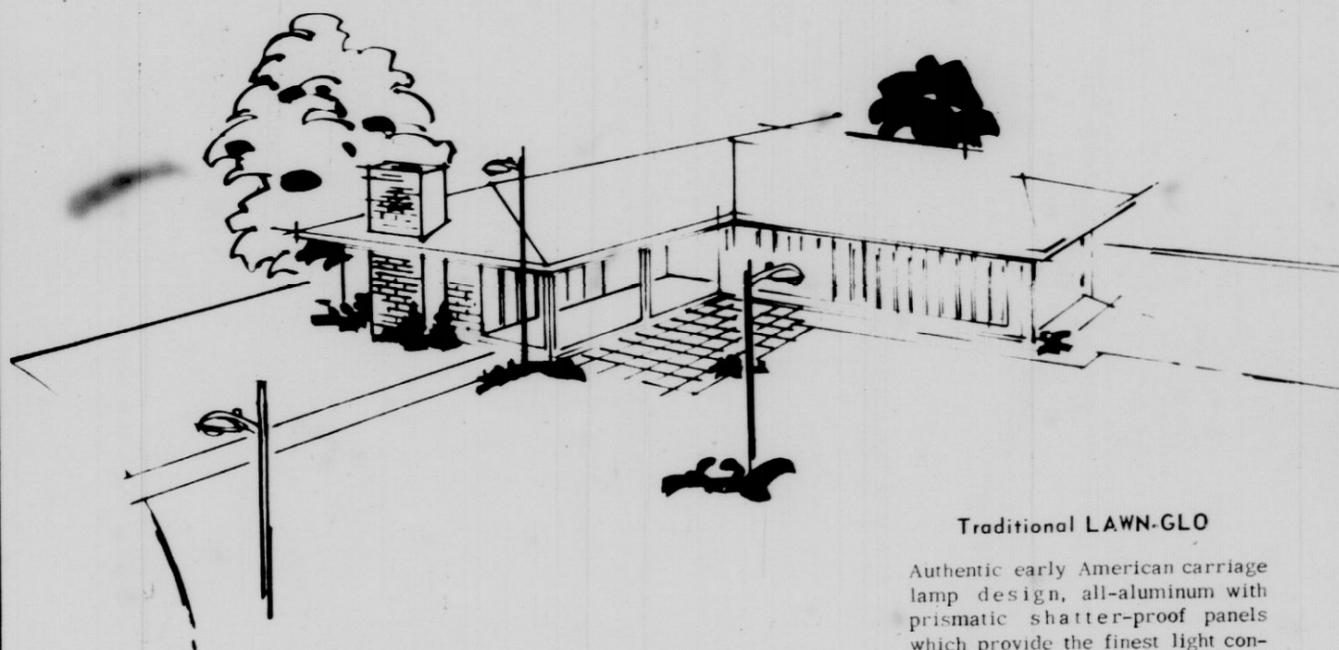
The botany and plant pathology teaching facilities, another addition to the laboratory, is currently under construction. The College of Human Medicine will use the facilities temporarily, pending completion of the Life Sciences Building.

De Zeeuw said that the two additions will make it possible for the department to be close to the greenhouses, where much of the research is done. He added that the greenhouses are now a quarter of a mile away. Improved equipment will also aid in refining research.

The additions will join the present structure which includes modern biochemical research laboratories, a greenhouse, a 4,000-Curie cobalt-60 source for radiation plants, plant growth chambers, and a wide range of electronic gear.

Although no open house will be held for the farmers during Farmers' Week, De Zeeuw said that the department will sponsor an exhibit on mushroom production in the Spartan Stadium Concourse.

Dusk-To-Dawn Lighting By L-M Offers Wide Variety, Highly Styled Designs



Line Material, long a leader in styled outdoor lighting, offers a complete line of dusk-to-dawn units for farm, residential and commercial applications. These units provide soft, low-level illumination and have an optical system which almost completely eliminates bothersome glare. Light is directed out and down where it is needed.

These luminaires were constructed to provide long service, eliminating replacement costs. Weatherproof construction and easy access for cleaning and relamping are additional features. All are available with photo-controls for automatic "on" - "off" light. Authorized L-M/Michigan distributors listed to the right will be glad to provide technical data, lighting application data, or any other service relevant to installation. Call your nearest distributor soon - you'll be glad you did.

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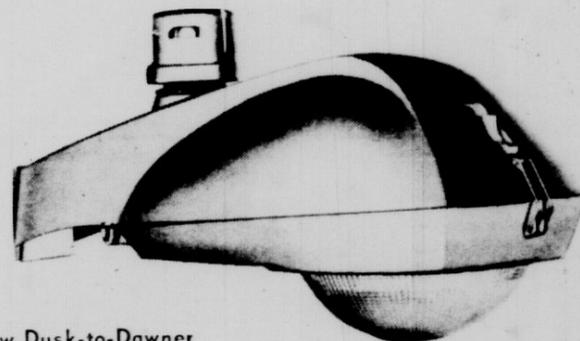


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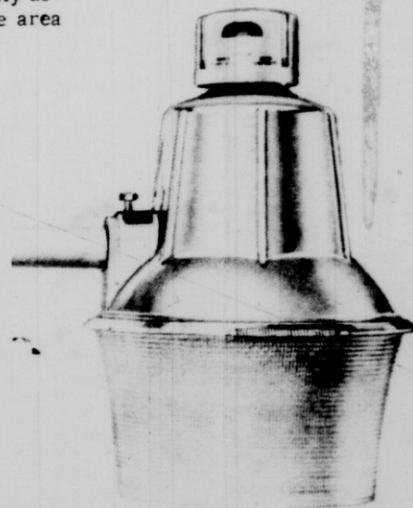


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Scientists to help growers increase crop profits

MSU crop and soil scientists will tell growers from throughout the state how to get the most out of their acreage at this year's Farmers' Week.

Specialists will outline the results of the latest crop and soil research and tell what it means to Michigan agriculture and individual farmers.

Growers will also hear about the profit and production outlook for 1967.

The first session Tuesday will deal with sugar beets.

Ernest Flegenheimer, president of the Michigan Sugar Co. of Saginaw will outline the national and international sugar situation and tell how it relates to Michigan growers.

The field bean program Thursday will center around a progress report on the bean breeding program and the new MSU developed light red kidney bean.

The new kidney bean, developed by M. Wayne Adams, professor of crop science, and by Axel Anderson, a former MSU plant pathologist, is resistant to anthracnose, a fungus common to the kidney bean.

According to Adams it has a

more attractive seed, is plumper and has a nicer color.

Also scheduled are talks on how supply and demand works in setting the price for the bean crop by Howard Hirth, Campbell Soup Co. and J. Stanley Sherman, general manager of the Michigan Elevator Exchange, Lansing.

A report of the activities and plans of the Michigan Bean Commission will be presented by Maynard Brownlee, secretary-manager of the Michigan Bean Commission.

The potato-growers' session, also on Thursday, will include a discussion of the use of asphalt in crop production by C.M. Hansen, associate professor of agricultural engineering.

MSU has developed a machine which can place a thin layer of moisture-barrier asphalt beneath the soil surface.

A film on the Michigan potato industry will be followed by discussions of potato planting practices by J.L. Crosby, Montcalm County Extension agricultural agent, and R.W. Chase, assistant professor of crop science.

The Wednesday morning session will be aimed at helping growers produce top yields of soybeans and small grains.

The soybean programs include soil management practices by Boyd G. Ellis, associate professor of soil science; weed con-

trol by William F. Meggitt, professor of crop science, and variety, planting date, rate and row spacing by Stuart C. Hildebrand, assistant professor of crop science.

Included in the program for better production practices of small grains are soil management practices by E.C. Doll, associate professor of soil science; cultural practices for wheat by M.H. Erdmann, professor of crop science, and cultural practices for oats and barley by John E. Grafius, professor of crop science.

The current status of the cereal leaf beetle infestation will be discussed by R.L. Jones, professor of entomology.

Wednesday afternoon, talks will center around methods of increasing corn silage yields. Establishing feasible yield goals and the methods of attaining them will be presented by E.C. Rossman, professor of crop science.

The Wednesday afternoon corn silage programs also include fertilization and tillage practices for efficient corn silage production by James A. Porter, associate professor of soil science and the influence of changing price relations of profits in irrigating corn by C.R. Høglund, professor of agricultural economics.

Problems in potato disease identification will be presented by W.J. Hooker, professor of botany and plant pathology.

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SHOP MONDAY . . THURSDAY . . FRIDAY 'TIL 9 P.M.

3 farm leaders to receive citations

MSU will honor three Michigan farm leaders for "Distinguished Service to Agriculture" at the Tuesday Farmers' Week Program.

The men who will receive the citations are Frank Heim, of Jackson, O.E. Herkner of Traverse city and R.W. Petersen of Lakeview.

The awards will be presented by T. K. Cowden, dean of the College of Agriculture and Natural Resources.

Sylvan H. Wittwer, director of MSU's Agricultural Experiment Station, will speak at the program on "Advances in Agricultural Research."

Heim is a dairyman who served for many years as president of the Michigan Animal Breeders' Cooperative. He has been a member of the Michigan Extension Advisory Council for the past 10 years and currently serves on the executive committee of the state Agricultural Council for the Extension Service.

He has also been active in the Michigan Agricultural Confer-

ence and has received the MSU Dairyman of the Year award.

Herkner has been identified with the state's cherry industry for many years. A progressive fruit grower, who is quick to adopt new production practices, he is a past chairman of the Michigan Cherry Commission.

Herkner has also served as president of the Michigan Assn. of Cherry Producers, National Red Cherry Institute and National Cherry Growers' Council.

Petersen, long active in soil conservation circles, is a former president of the Michigan Assn. of Soil Conservation Districts and the National Council of SCD's.

He currently operates a 500-acre dairy farm near Lakeview and for 19 years was a successful farm equipment dealer in his community. He also grown potatoes commercially.

This is the 14th year MSU has honored men who have made singular contributions to Michigan's agricultural progress.



O. E. HERKNER



FRANK HEIM



R. W. PETERSEN

Youth programs two days

Mrs. George Romney and Lt. Gov. William G. Milliken will

be the speakers for the Youth Day Program of Farmers' Week Tuesday and Thursday for Michigan high school students.

grams will start at 11:10 a.m. Tuesday and Thursday.

Speaking at the general session "Opportunities Unlimited" on "Citizen Responsibility and Opportunity," Milliken will speak Tuesday and Mrs. Romney, Thursday. Entertainment will be provided by the Ray Ricker Quartet. The program will be broadcast live over WKAR radio.

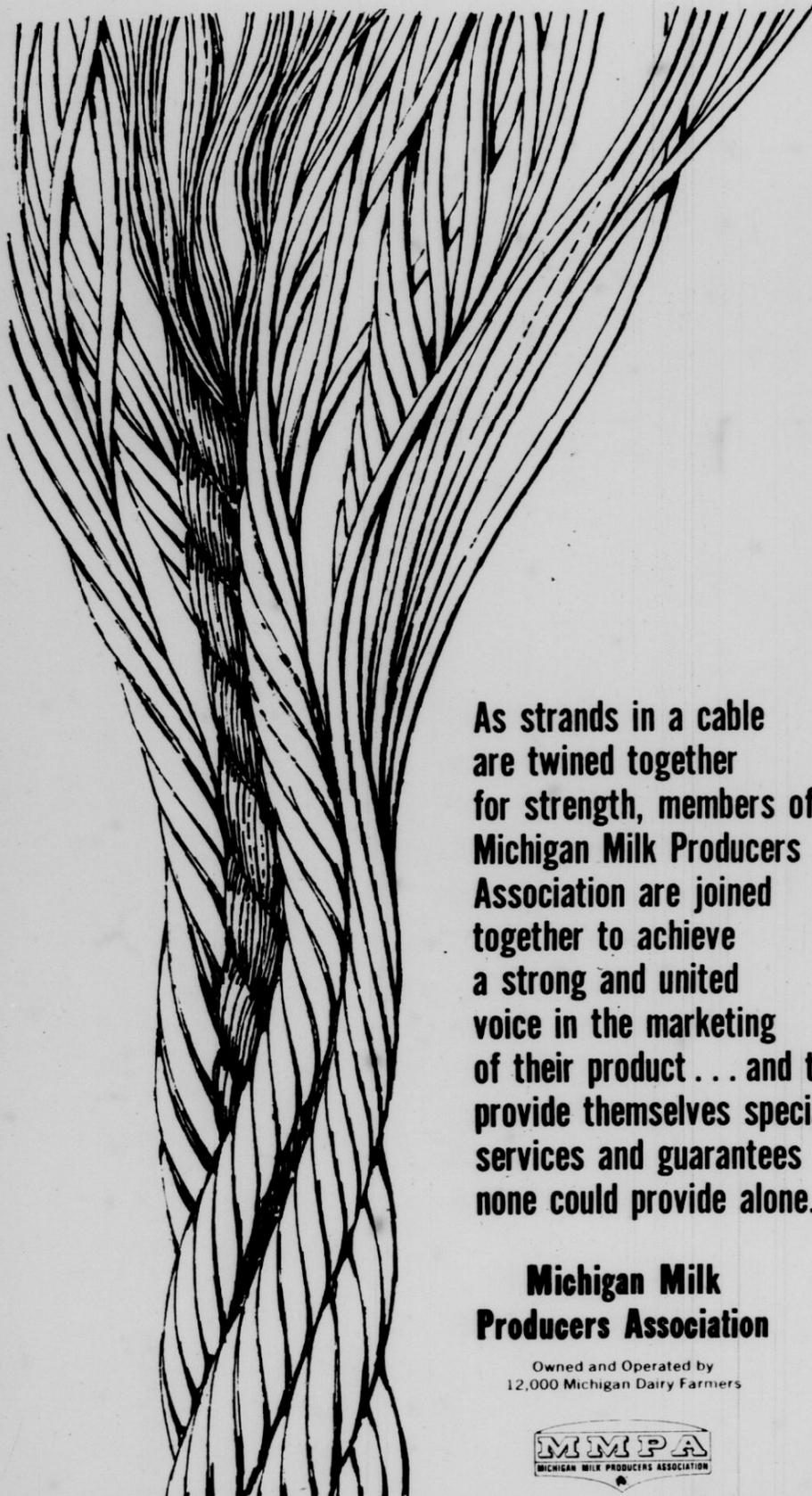
Information will be provided by MSU faculty members with the assistance of professionals in the specific areas. Some of the careers offered include agricultural industry, art, communications, nursing, teaching, social work, medical technology and engineering. Open discussions will follow the general information session.

Dale Nye, Stevensville freshman and state president of FFA, will introduce the speakers.

A panel discussion on "College in Your Future" will be held at 1:15 p.m. in Erickson Kiva for high school students continuing their education and parents desiring post-high school information.

"Opportunities for You" will involve 21 different career areas offered to the students to provide information on employment opportunities and education requirements. The duplicate pro-

Members of the panel will be (continued on page 15)



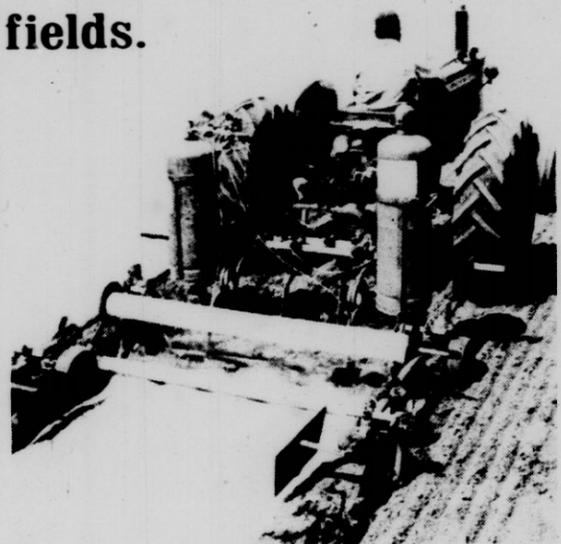
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NO WEEDS
NO NEMATODES
NO DISEASE

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Farm wives to get laundry tips

Current laundry developments will headline the Farmers' Week homemakers program Tuesday and Wednesday.

Information on proper usage of today's machinery, detergents, bleaches and fabric softners will be exhibited at 113 Agricultural Engineering. Cut-away models of various appliances designed to show their operation will be featured.

Miss Mary E. Huck, director of Home Economics for Frigid-

aire will discuss "Up-To-Date Methods in Home Laundering" at 10 a.m. Tuesday morning in Shaw Terrace Lounge. Miss Huck will emphasize current laundry questions such as handling of garments with durable press finishes, laundry care for other new fabrics, use and features of new laundry equipment and what practices a homemaker can use to contribute to good laundry.

Miss Huck has a broad back-

ground in home service work. She has been honored by organizations in Columbus, Ohio, McCall's Magazine and Ohio State University for her outstanding contributions to improved living standards. She is currently listed in the "Who's Who of American Women."

"Choosing and Using Laundry Equipment" will be discussed by Helen Van Zante, author of "Household Equipment Principles", at 1 p.m. Wednesday in

Agricultural Engineering Building Auditorium.

Mrs. Van Zante, an associate professor in the Department of Household Equipment of Iowa State University, will also speak on "Choosing and Using Dishwashers and Garbage Disposers" at 3:15 Wednesday. She is a member of the American Home Economics Assn.

Garnette Veld, home economist with Proctor and Gamble Co., will speak about "Choosing and

Using Detergents and Other Laundry Aids" at 1:45 Wednesday at the Agricultural Engineering building Auditorium and 10 Thursday in the Shaw Terrace Lounge.

Miss Veld, a 1964 MSU graduate, received her Masters Degree in 1965 from the University of Wisconsin before going to Proctor and Gamble. She is a member of the American Home Economic Assn. and Home Economists in Business.

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Planning events takes year

Preparation for Farmers' Week is a year-long process that is under the direction of Byron Good, chairman of Farmers' Week since 1959.

Good came to MSU in 1941 after he had earned his master of science degree from Ohio State University. He is a professor of animal husbandry and has been manager of the University Farms since 1950.

Preparation for Farmers' Week is an immense job. According to Good, 25,000 to 30,000 visitors are expected at the 52nd annual Farmers' Week programs this week.

Farmers' Week occupies the time of many people, but much of the responsibility is in the hands of Good and his secretary Mrs. Jean Peterson. It is Mrs. Peterson's job to check out many of the details involved with the week.

Numerous meetings during Farmers' Week cause many conflicts concerning the rooms available for meetings. Classes that regularly meet in a certain room sometimes have to be changed to other room locations.

Rooms must be cleared for the sessions in Anthony Hall, Agricultural Engineering Building, Engineering Building, the Auditorium, the Union, and Kel-

logg Center. Mrs. Peterson has the task of making these changes known to the students, doing so via the State News.

In planning for Farmers' Week many problems must be overcome. Parking for the thousands of visitors must be provided. Exhibits must be set up in the Spartan Stadium concourse. Banquet reservations and the distribution of approximately 30,000 programs are all important problems.

Much of the work done for Farmers' Week is done by the individual departments. It is Good's job to coordinate all those efforts into a successful week.

Representatives from 17 states and Canada are expected this week and 184 authorities from off campus are going to participate in the activities.



BYRON GOOD

CASA-NOVA #2

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Spaghetti
Lasagna
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Busy week

(continued from page 1)

tato day; maple syrup production; turkey day and farm business decisions to beat by inflation. Michigan Forest Product Cooperatives; Centennial Farm Assn.; Michigan Flying Farmers; Michigan Onion Growers and Michigan Rural Electrification will hold luncheons.

A free lecture-concert film on "Chile Today" will be held in the evening.

Friday will conclude Farmers' Week with a flower show in the University Auditorium lobby, rabbit day at the poultry research farm and a luncheon and annual meeting of the American Dairy Assn. of Michigan in Kellogg Center.

Exhibits will be in the concourse of MSU's stadium, Agricultural Engineering Building, Livestock Pavilion and the new Natural Resources Building. All the livestock barns and animal teaching and research centers on the University farm will be open for inspection. The new MSU Veterinary Clinic will be open for visitors 1-5 p.m. daily.

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CONCERN TO FARMERS

Water usage problems topic of talks, exhibits

Americans today use 10 times as much water as they did 25 years ago, but this great change goes almost unnoticed.

Water is one of the most taken for granted utilities by Americans today. Yet water cannot be taken for granted by the many rural families who live outside the public water supply.

Thus, one of the most important features of the 1967 Farmers' Week program is a series of talks and an exhibit concerning the ever increasing usage of water and the attendant problems.

The focal point of the presentation will be an exhibit showing a complete cycle of water and its uses.

As a parallel to this exhibit, a series of talks Wednesday in the Agricultural Engineering Building Auditorium will examine the various uses of water today.

The program will begin at 10 a.m. with Truman Surbrook, instructor of agricultural engineering at MSU, who will discuss farm and home water needs.

At 10:30, George H. Klum will examine water softening, chlorination and iron removal. Klum is the director of the Culligan Water Institute from Northbrook, Ill.

Completing the morning series will be Norman Paspdorf, chief of the Labor Camp Unit of the Michigan Dept. of Public Health, and Kenneth VanPatten, director of the Dairy Division of the Michigan Dept. of Agriculture. Paspdorf will discuss domestic water system regulation and VanPatten will examine dairy farm and migrant housing water system regulation. Their presentations will begin at 11:25.

The afternoon talks will coordinate water supply with helpful advice on home water equipment.

The first topic will be the choice and usage of laundry equipment given at 1 by Helen VanZante, associate professor in the Household Equipment Dept. at Iowa State University in Ames, Iowa.

She will continue at 1:45 with advice in choosing and using

dishwashers and garbage disposers.

Next the choice and usage of detergents and other laundry aids will be discussed by Garnet Veld, a home economist from Procter and Gamble Co. of Cincinnati. This talk will be presented at 2:30 and repeated at 10 a.m. Thursday.

An "Ask the Professor" booth will be available to answer any specific questions. The booth will feature Carlton Edwards, chairman of the water program and associate professor of Agricultural Engineering at MSU, and Anne Field, extension specialist

and instructor of home management.

Both the question and answer booth and the water exhibit will be located in the research laboratory of the Agricultural Engineering Building.

The exhibit will be coordinated to show a home or farm water system from well casing to the disposal field. Pitless adapters, water pumps, softeners, iron removal, water using equipment, laundry, dishwashers, garbage disposals, and disposal systems are featured.



Preparation

Preparing Farmers' Week displays kept many persons busy last week. One of them was Ron Draft, East Lansing graduate student who is shown with the migrant workers display in the Agricultural Engineering Building.

Photo by Chuck Michaels

Ford recognizes farmers' needs

NOBODY needs to tell you how fast farming is changing. Your business demands more time spent as a manager than as a laborer . . . your investment is higher . . . costs up. But profit opportunities are greater--if you're geared to farm efficiency.

Many things about our business are changing, too, like the new efficient line of Ford tractors. But one thing hasn't changed--our profit still depends on **you**. That's why we want to do more than just "sell you a piece of equipment".

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New Angus addition to 'U' herd

A new Angus bull was added to the MSU herd sire battery in December. He is Homanor Bardoliermere 1564, bred by and purchased from Old Home Manor, Homer City, Penn.

Hoss, as he is called because of his great size, was born on May 2, 1964. He is undoubtedly one of the largest bulls for his age in the Angus breed, presently weighing 2,100 lbs.

Plans are being made to mate Hoss to 50 Angus cows in order to more accurately evaluate his genetic ability. It is hoped he will transmit his extra ruggedness and growing ability to his progeny.

This new addition to the Angus herd may be seen at the purebred beef barn south of the campus on Bennett Road.

FORD MOTOR COMPANY
Tractor And Implement Operations (U.S.)



Cute too

Housewives reportedly consider this new green cauliflower to be "cute," but the added visual appeal is just one of its advantages. Holding one is its creator, Shigemi Honma, MSU horticulturist.

IT'S 'CUTE'

Now, green cauliflower

Being "cute" in the eyes of homemakers is just one of the properties of the new green cauliflower developed by Shigemi Honma, Michigan State horticulturist.

Since the vegetable retains its unusual color after it's cooked, homemakers think it's cute. It makes a nice contrast to the white sauce, too. Best of all, the different color makes it easier to fox innocent children into eating it.

Honma has been working on the green cauliflower, which he calls a "Hacabro," since 1958. He crossed a Hawaiian white cauliflower with a variety of broccoli, thus the name—a combination of "Hawaiian," "cauliflower" and "broccoli."

Of course the major consideration is ease of growing. Farmers must normally tediously tie all of the plants two weeks before harvesting so they don't

turn a brown color. The new variety doesn't require this.

It will be field tested this summer and growers will decide its

worth, but don't be surprised if the cafeteria serves green cauliflower next year. They didn't forget to cook them.

'U' livestock judging team sports impressive record

The MSU Livestock Judging Team, coached by Harlan Ritchie, Ph.D., of the Animal Husbandry Department, finished off the 1966 season with an impressive record.

The team must judge, both as a group and as individuals, beef cattle, swine and sheep on their desirability as market and breeding stock. Depending on the contest, the judges must give oral and/or written reasons on their choices.

As they travel through the mid-west and east, the team members often visit private and university farms operations to observe their management.

Members of the 1966 team include: Clare Anders, Comstock Park senior; William Brown, Bellevue, Wash., senior; Janet Buck, Mt. Morris sophomore; William Byrum, Onondaga senior; Scott Cristman, Iliion, N.Y., sophomore; Norris Blackledge, Marion senior; John Fischer, Gagetown senior; Carole Gannon, Detroit sophomore; Gerry Kuhl, Sebawaing senior; James Mayes, Port Austin junior and Paul Oesterle, Mason sophomore.

The season began at the North Central Judging Contest in East Lansing last spring. Among eight teams, MSU placed first overall and took a first in swine, cattle and sheep. Brown placed first overall and took a first in swine, Mayes took a first in cattle and Anders placed first in sheep.

At the Spring Judging Contest, here, the team ranked second overall. It also placed first in swine, second in sheep and fourth in cattle. The team then went on to the Duroc Picture Judging Contest, where it placed first.

The Eastern States Exposition in Springfield, Mass., started off the fall season. The team ranked

second overall out of eight teams competing. It also took a first in swine, a second in cattle and a second in sheep.

In October MSU's team traveled to the American Royal in Kansas City, where it placed eighth among 24 teams. It also took a second in sheep and an eighth in cattle. Byrum placed second overall as an individual and Cristman, ninth.

In the Pennsylvania Livestock Exposition in Harrisburg Nov. 10 the team ranked third overall among 11 teams and placed second in cattle, second in swine and fourth in sheep.

On Nov. 12 in the Eastern National Exposition in Baltimore, Md. MSU placed second overall among 13 teams. It also took a first in cattle, a third in swine and a fifth in sheep.

The season was rounded out at the International in Chicago over Thanksgiving. Among 35 teams, MSU placed second and also took a seventh in swine, an eighth in cattle and a ninth in sheep.

Meat team places high in judging

The MSU Meat Judging Team, composed of students primarily of animal husbandry and pre-vet, usually has a creditable record in a full round of the professional meat judging contests during the spring and fall of every year.

The team members' work consists of placing classes of; two beef carcasses, two pork carcasses, two lamb carcasses, two wholesale beef cuts and one fresh ham. They must then grade 20 beef carcasses and 10 lamb carcasses according to United States Dept. of Agriculture standards.

Finally, they must give five sets of written reasons on; one beef carcass, one pork carcass, one lamb carcass, one ham and one beef cut.

The members of the 1966 team included: Mike Bigelow, Flushing senior; John Apple, Detroit junior; Don Ridgeway, Akron, Pa., senior; Norris Blackledge, Marion senior; Jim Maness, Franklin, Mass., senior and Steve Swiontkowski, Chicago, Ill., junior. Robert Merkel, Ph. D., of the Animal Husbandry Department, is the coach.

Last spring the team placed second and third at the Southeastern Meats Contest in Knoxville, Tenn. This fall they placed fifth high at the American Royal in Kansas City; first at the Eastern National in Richmond, Va. and 10th at the International in Madison, Wis.

At the Southeastern, MSU's

(continued on page 18)

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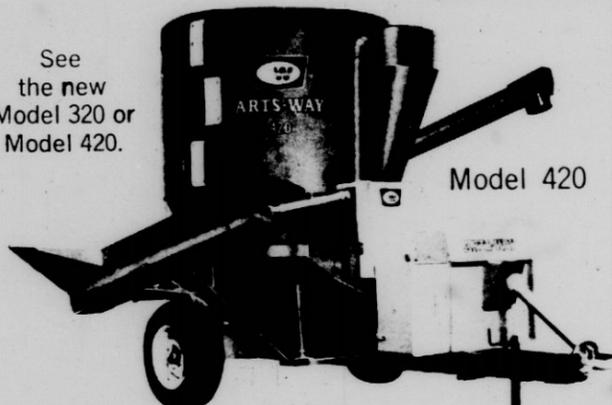
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Extension Service ponders budget

New agriculture and farm development projects will depend on an increased budget proposal being prepared for 1967-68 by the Farmers' Cooperative Extension Service of MSU.

The Extension Service's budget is still to be reviewed by the State of Michigan's Budget Committee as part of the University's

total budget program. Pending approval by the committee, the budget will be submitted to the House of Representatives and then to the governor for final approval.

Although Gov. George W. Romney has promised not to sign appropriations this year until Michigan's tax structure has been

overhauled, the University's budget must be approved by midnight of June 30.

"This money is needed to help pay salaries for 250 research scientists and to sponsor over 350 research projects the cooperative is carrying on," said Joseph Marks, agriculture research news editor.

"We've made great strides during the past 100 years," he said. "In 1880 the cooperative's budget was \$15,000, and it employed five research scientists."

There are over 250 scientists on the Extension Service's present staff, and last year's budget was \$3.97 million.

"These projects have meant lower food prices and more nutritious foods for the consumer, and an increase in the farmer's economy," Marks said.

This year's budget will sponsor five major research programs.

For the study of food science,

\$280,000 will be used to develop new and improved processed foods, expanded markets, and the development of nutritious packaged and frozen foods.

The beef cattle research for the second largest agriculture industry in the state will use \$260,000 for the production of new feeds, cow management programs and nutrition studies.

Winter wheat and the sod industry of Michigan will receive \$161,000 for research projects. These include disease and insect control for wheat, and the development of new and sturdier grass varieties for the sod growers.

The study of natural resources, water pollution, wildlife conservation, forest management, and lake and stream pollution control will receive \$250,000 of the proposed budget.

"These projects are used by almost every farmer and con-

servation officer in Michigan," said Marks. "At each step of the project extensive reports are written and sent to selected spots in the state."

Scientists and agricultural specialists will help any farmer in Michigan to improve his stock, farm buildings, crops and farm management programs, said Marks.

Special appropriations will be sought to help support a research center for pesticides, now in operation on the University's South Campus. The federal government will match any appropriations the state approves for the Pesticide Center.

The center has been doing research in pesticide consumption of cows and how it effects the quality of milk.

"Public concern over the health hazards of pesticides made this research project of prime importance," said Marks.

Fewer, bigger farms in Michigan picture

Farms continue to grow larger but less numerous in Michigan, the Michigan State Agricultural Experiment Station reports.

Whereas in 1959 there were about 65,000 farms in the state there were only 60,000 in the census of 1964 and the 1980 projection is for only 37,000 farms. These farms, however, are larger in size than ever before with the 1964 farm being about 18 acres larger than the farm in 1959. The farm of 1980 should be almost 90 acres larger than the farm of 1964.

The rise in size is due to larger farms expanding when many of the smaller farmers quit the market. This loss of many small farmers is due to a low return of profits and also because of higher wages outside of farming. Karl T. Wright, professor of agriculture economics, said recently.

Small farmers do not make enough from their crops to enable them to hire enough help and thus their next year's production is lowered, said Wright. Many small farmers also get outside jobs to supplement their farming and thus they cannot devote full time to their crops, he added. The higher wages also attract many potential farmers hands from farming to the factories.

One method that farmers use in combatting the loss of labor is buying more machinery so they can farm more land without having extra help. There is sometimes over \$25,000 spent by one farm on machinery, Wright said.

Incomes have begun to rise recently for farmers, said Wright, and this fact is confirmed by the Michigan State Agricultural Report. The report said that although farmers earned only \$2,250 per farm in 1964 they will earn up to \$4,350 per farm in 1980. There is also a trend towards higher production in Michigan despite the fact that there are less farms, the report said.

The most critical part of the

future of Michigan's farms seems to be the need for more personnel to work. Today only about 6 percent of the people in Michigan are farmers or farm workers, and the trend is towards even smaller numbers.

The advertisement features a black and white illustration of a farm scene. A dirt road with a white fence runs from the bottom left towards the center. On the right side of the road, several signs are posted, each advertising a different Elanco product. The signs are arranged in a descending staircase pattern. The products shown are:

- Stilbosol** for faster cattle gains (with a cow's head icon)
- Greenfield Triple Action** for finer lawns (with a lawnmower icon)
- Tylan** for thrifty hogs (with a pig's head icon)
- Dymid** for vegetable weed control (with a Dymid product can icon)
- Treflan** for weed control in soybeans (with a Treflan product can icon)
- Greenfield Lawn Food** for greener lawns (with a Greenfield product can icon)

At the bottom of the advertisement, the text reads: "You're seeing more and more products for farm and home from" followed by the Elanco logo (the word "ELANCO" in a circle). Below the logo, it says "ELANCO PRODUCTS COMPANY, A division of Eli Lilly and Company, Indianapolis, Indiana".

MSU works on irradiation

Some of the first experiments using irradiation to preserve foods were begun in MSU's Dept. of Agricultural Engineering in 1955.

MSU scientists found that beta rays were very effective for destroying organisms in powdered products. Similar good results were also found when the beta rays were used to kill organisms within bacon and certain other products such as wheat flour.

Practical uses are being found for this process which is being further developed by the U.S. Army.

Beef cattle industry gets boost at center

Michigan's \$100 million beef cattle industry, the second largest and one of the fastest growing agricultural industries in the state, gets a boost at MSU.

Michigan's beef producers raise only 30 per cent of the beef consumed in the state, but industry production is expected to increase 150 per cent in the next decade.

Expanded research programs are under way at MSU's Beef Cattle Research Center and Agricultural Experiment Station to develop Michigan's beef industry potential and insure the state adequate amounts of high quality beef.

Fifty-two lots of cattle on various nutritional and management trials are a daily exhibition during Farmer's Week at the Beef Cattle Research Center.

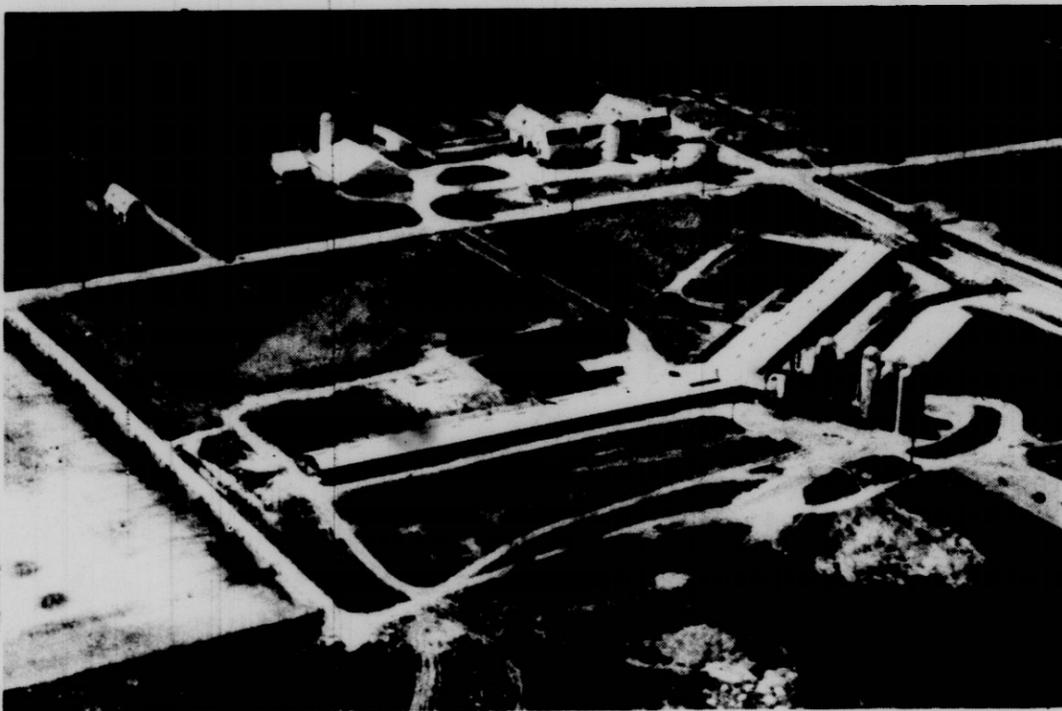
These trials include corn si-

lage maturity studies, fineness of chopping corn silage, fineness of grinding high moisture shelled corn, hormone additives, density studies and controlled environment tests.

Performance of steers fed alone vs. heifers fed alone vs. steers and heifers fed together are also featured.

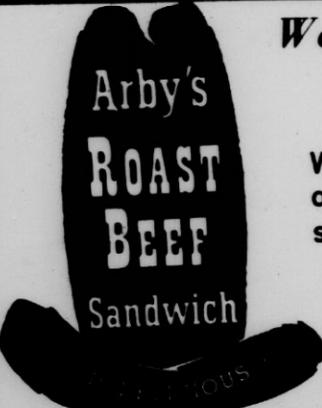
MSU's research studies include fundamental ruminant nutrition, fundamental physiology, genetics and breeding, cow-calf management and forage production and management.

Other studies carried on at the Beef Cattle Research Center include various housing experiments, feeding experiments and other "controlled atmosphere" studies aimed at increasing farm production and placing it on a sound and competitive basis.



Cattle center

During the week many farmers will visit MSU's experimental beef feeding area and the barns for experimental work in breeding better quality feeder cattle. The buildings are located on Beaumont and Bennett roads.



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Farmers' Week to feature home comforts for livestock

"All the Comforts of Home" for sheep, hogs and beef cattle will be dramatically illustrated during Farmers' Week on the MSU campus.

Beef cattle producers will be treated to a new look in feedlot housing Tuesday afternoon in Anthony Hall. Exhibits will include scale models of some of the newest research developments in housing.

A number of specialists will be here Tuesday to discuss this new trend in beef cattle housing. Among them will be Wesley Anderson of Cokato, Minn., an experienced beef cattle raiser, who will discuss "Six Years of Experiments with Controlled Environment and Slotted Floors."

In addition, Robert Maddex, MSU agricultural engineer, will offer plan specification and costs of building and installing

modern slotted floor housing facilities. Other specialists will discuss the potential for expanding cow-calf herds in Michigan.

Two speeches will highlight the Wednesday morning sheep demonstrations in the livestock pavilion. First, MSU veterinarian Clifford Beck will discuss the characteristics of sound sheep. The second speaker, Harold Henneman, of the animal husbandry department will talk on "Shepherd Supplies."

The afternoon sheep program in Anthony Hall will feature an exhibit of measures necessary to economically increase productivity per ewe. The main speaker of this program will be Arthur Brandt, Versailles, Ohio, Master Shepard Award winner of Ohio for the past two years. Brandt will discuss the management techniques he is using in

the operation of his 270-ewe commercial operation.

A life-size hog housing set-up for both farrowing and finishing hogs will be the main attraction during the Thursday morning hog program at the livestock pavilion. Here MSU specialists will point out how the housing facilities should be insulated and ventilated.

This afternoon program will feature Russell Jeckel, Delavan, Ill., one of the nation's outstanding swine producers. Jeckel will tell how he and one hired man raised 3,500 hogs from farrowing to finish for market.

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Across From Judging Pavilion



Typical

A display of modern farm equipment, such as the combine shown above being worked on by MSU students, will be shown during Farmers' Week at the Agricultural Engineering Building.

Photo by Chuck Michaels

Exhibit spotlights tractors

The highlight of the agricultural engineering exhibits during Farmers' Week will be a tractor equipped with a transistorized AM-FM radio, a two-way radio to keep in touch with home, wall-to-wall carpeting, an electronic seed counter and a closed circuit television.

This tractor, according to MSU agricultural engineers, is more than a luxury item. It is specially designed by a commercial company to provide the modern farmer with more comfort, enabling him to work long hours in the field, and more precise, scientific control over his environment. The TV will enable the operator to keep a constant eye on the trailing equipment while watching other controls.

The costs for tractors displayed by the nine major manufacturers, range between \$3,000 and \$12,000.

Carl W. Hall, chairman of agricultural engineering, says "Engineering for Modern Agriculture" will be his department's theme during Farmers' Week.

"It is estimated that at least 80 per cent of the technological changes that have occurred on American farms involve engineering techniques or principles in some way," comments Hall. "Our Farmers' Week programs are intended to help explain how these changes can be met effectively and wisely."

The latest pickle and asparagus harvesters, a complete line of crop drying equipment, combination tillage and planting units,

liquid manure handling equipment, anhydrous ammonia spraying equipment and several silo models will also be included in the agricultural engineering exhibit.

A full line of events are in store for the agricultural engineers during Farmers' Week.

Beginning Tuesday morning, the agricultural engineers will begin reporting on the latest research developments in fruit and vegetable harvesters, a new technique for placing an asphalt layer under the soil to conserve moisture in sandy soils, trends in tractor development and extensive discussion on improvements in dairy housing and feed handling.

Wednesday the program will concentrate on improving the water supply for both farm and home. Water systems, sanitary

regulations, pollution, softening, iron removal and other water problems will be discussed.

An agricultural engineering banquet Wednesday evening will have a presentation of a "Distinguished Service Award" and naming of the "Engineer of the Year" in Michigan.

Keynote speaker for the banquet will be Sylvan H. Wittwer, director of MSU's Agricultural Experiment Station, who will report on some of the Experiment Station's 350 research projects and their importance to the future.

The Thursday program will be a discussion on "Systematic Decisions for Mechanizing the Entire Farm." Reports will be given on the labor, equipment and economics in developing a completely mechanized setup for hogs, beef and dairy operations.



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NATURAL RESOURCES

Ag College gets additional title

Farmers' Week will give thousands of farmers visiting the University an opportunity for a first-hand look at current developments in natural resources.

A primary feature of the University's Natural Resources program for interested spectators will be a tour of MSU's new \$4 million Natural Resources Building. The tour includes action demonstrations of various research equipment used by forest products industries.

This year's program for Farmers' Week will have more meaning for undergraduate students in the Natural Resources area due to a recent change in the name of the College of Agriculture to the "College of Agriculture and Natural Resources."

The Board of Trustees approved the change of the University's oldest division last November to its present name.

"This name change," stated Howard A. Tanner, director of the Division of Natural Resources, "has given more identity to the four departmental areas of natural resources and has had relative meaning from both internal and external aspects."

"Internally it has brought the four departments of Forestry, Forest Products, Fisheries and

Wildlife and Resource Development closer together.

"Externally it has gained the support of people interested in natural resources who now have a way of associating themselves with the college."

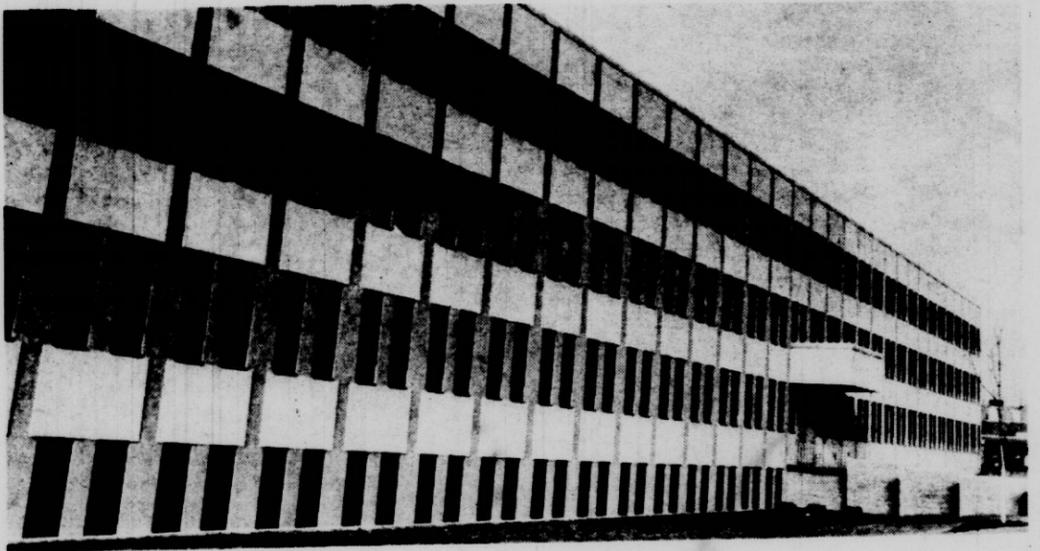
Between 40-50 per cent of the college's present undergraduate enrollment is in the area of natural resources. According to Tanner, this substantial proportion of enrollment represents a different area of emphasis and reflects a national interest in this field.

"Michigan State is recognized among the top five or six schools in natural resources in the country," said Tanner.

"With this in mind the Natural Resources Division is trying to increase the degree of interdepartmental sharing of curriculum to give students a broader education in the area of natural resources."

"The change in the college's name to include natural resources has given us an opportunity to emphasize our program."

Besides the tour of the Natural Resources Building there will also be a panel discussion in the Fisheries and Wildlife and Forestry departments.



New facility

Tours of the University's new Natural Resources Building will be among the features of Farmers' Week. They are to start in Room 172 at 10 a.m. Tuesday, Wednesday and Thursday. The building at Farm Lane at Wilson Road will also be used for a variety of programs.

Photo by Larry Fritzlan

Resources bldg. holds tours

A variety of Farmer's Week activities will be held at the new Natural Resources Building, located south of Anthony Hall at Farm Lane and Wilson Road.

Tours including action demonstrations of various forest products research equipment will be held at 10 a.m. Tuesday, Wednesday and Thursday, beginning in room 172.

A series of specialized programs will start at 9:30 a.m. Tuesday in the auditorium when Lewis W. Moncrief of the Resource Development Dept. will present "Golfing in Rural Recreation". Following at 10:30 will be "Ingredients for a Successful Rural Recreation Enterprise."

At 1:30 Tuesday in the auditorium Norman F. Smith of the Conservation Dept. will speak on outdoor recreation. At 2:30, there will be a program on camping area design, and at 3:30 a Rural Recreation Enterprises meeting.

At 10 Wednesday will be a program on the status of Michigan shooting preserves in room 221; and "Changing Land-use in a Changing Michigan" in the 350-seat auditorium. Two other programs on shooting preserves will

be given in room 221 at 10:30 and 1:30.

"Challenges of Regional Planning," by William C. Roman, director of the Tri-County Regional Planning Commission, and "State-wide Development and Planning in Michigan", by Donald E. Barley of the Michigan Dept. of Commerce, will be presented at 10:45 and 11 a.m., both in the auditorium.

Maple syrup producers will meet for discussion 10 and 11 a.m. Thursday in the auditorium, on "New Methods for Concentrating Maple Sap," and a research report.

Throughout the entire week, exhibits will be on display, featuring an "instant ocean" of coho salmon, wood products, land and water management, and items of interest to conservation leaders.

The four-story building itself, built at a cost of \$4 million, was first occupied in September. Designed by Albert Kahn and Associates of Detroit, it is paneled in various attractive and fire-proofed woods, such as cherry, imperial walnut, elm, birch, red gum, aspen, ash, oak, pecan and grey hardwood.

Headquarters of the depart-

ments of Fisheries and Wildlife, Forestry, Forest Products and Resource Development are located there, as well as the Institute for Water Research and U.S. Forest Service Office.

In a faculty of 50 serves 1,000-1,100 students. Classes offered include forest economics, resource development, water resources, soil conservation, parks and recreation and community development.

Featured facilities include: a metal-walled Balance Room, dust and vibration free; Fracture Lab, for testing wood under varying pressure; Hot Lab, testing the resistance of wood to flame; Stress Room, for testing wood structure.

Also, a Metal Machine Shop, which produces new materials for research products; Electron Lab; Climate Chamber; animal runs and pens; Cold Room, for observing plant and animal functions at varied temperature; Isotope Counting Room; Necropsy Room, where fish are stored for further study.

And, an artificial stream; graduate cubicles; a reference library containing periodicals and reprints; and an Activities Room, where the natural resource clubs have their offices.



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Putting ideas to work agents' aim

The diffusion of new ideas in agriculture is the key role of the Extension Service, said Mason Miller, director of the MSU institute of personnel development. Miller, speaking last week to the faculty of the Agriculture Dept., said that there has been a wide gap between the practicing farmer and the scientific innovator. "The Extension Service's main purpose is to take the new ideas

discovered by the agricultural researchers and put them into understandable terms and disseminate them to the individual farmers," Mason said. "We must help farm people do things differently today; to change with the times," he said. "We are the agricultural sociologists," Mason said, "and we must know the farmer as well as the sociologist knows the slum area."

nicque," Mason said. Mason concluded by warning "that we should not judge farmers as a single and distinct class." He said that the farm population is an integral part

of society and, like the city dweller, should command the respect of his position of the American economy. "The farmer provides the life-blood of the economy, and should

be made aware of all the beneficial changes in his industry," Mason said. "Through this means only can the agricultural economy grow to meet the population's needs."

Youth show

(continued from page 6)

John J. Forsyth, Orientation Coordinator; Robert Piersma, Admissions counselor; and William A. Mann, professor of counseling and personal services.

Norman A. Brown, coordinator of student program in the College of Agriculture and Natural Sciences and chairman of Youth Day, will moderate the discussion.

The Youth Day Program is being co-sponsored by the Colleges of Agriculture and Home Economics.

Mason said that there are four stages that extension workers go through to adapt farmers to new idea.

"We must make the farmer aware of the innovation," he said. "We must use mass media as the primary means of information."

"Next, we must attract his interest. We must point out the individual advantages to him."

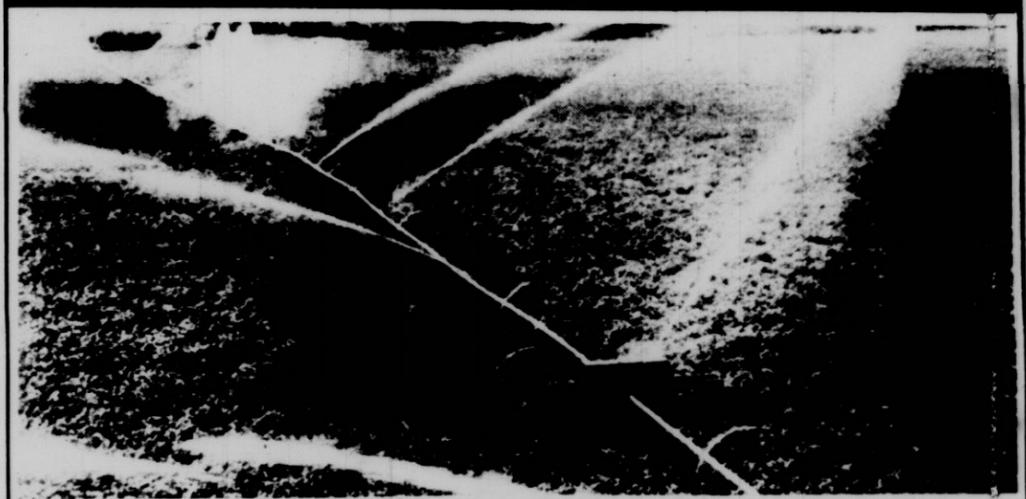
"These first two stages are so important, for without them we would not be able to get the farmer to try the innovation, the third stage. Here we must convince him, sell him on its benefits," Mason said.

"Finally, he can then adopt the innovation and spend the necessary capital to make it an integral part of his farming tech-

FARMER'S WEEK M.S.U. JAN. 30 - FEB. 3, 1967

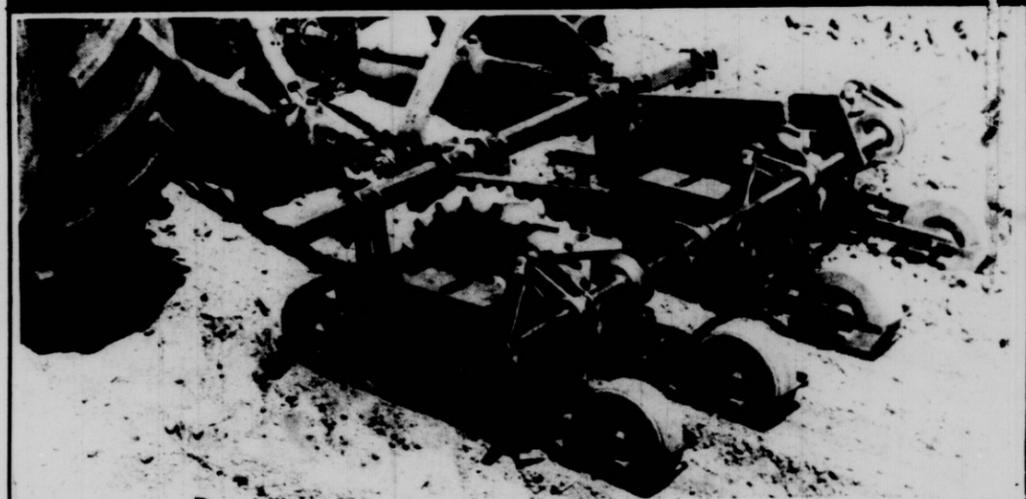
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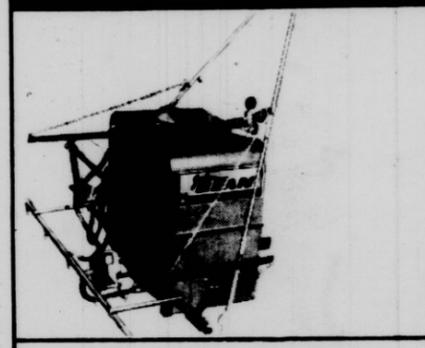
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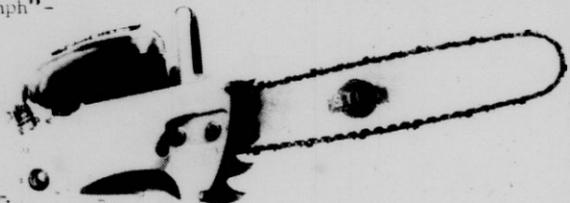
This 1/8-inch-thick layer of asphalt, placed two feet under the surface of sand soil, doubled the water holding ability of the soil and greatly increased crop yields in experiments. This process will be presented to Michigan farmers in various presentations this week.



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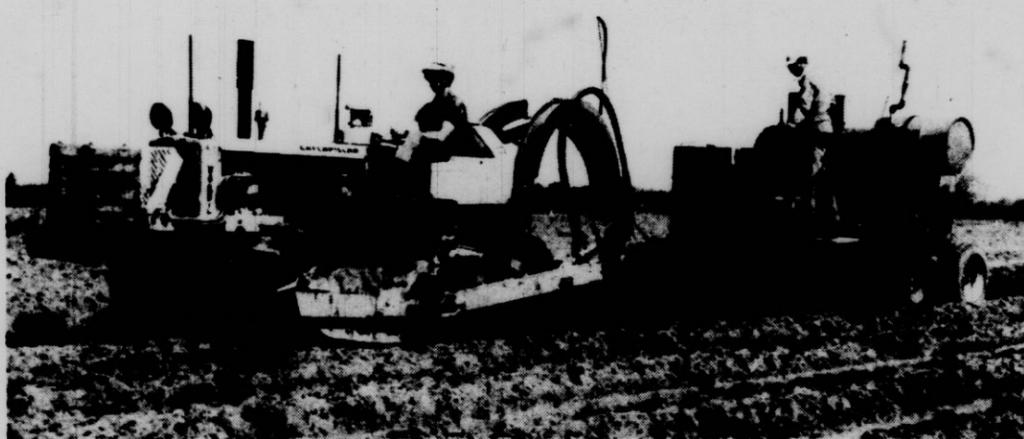
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Underground paving

By means of this specially designed equipment, an asphalt emulsion is sprayed two feet below the surface of sandy soil in order to improve crop yields by stopping water seepage. This technique, recently developed by two MSU faculty members, will be discussed at 11:15 a.m. Tuesday in 116 Agricultural Engineering Building.

Asphalt strips under soil help in higher crop yields

The road to better crop yields may well have been “paved” by recent developments here at MSU which will make millions of acres of marginal farm land productive.

Clarence M. Hansen, MSU agricultural engineer, and A. Earl Erickson, MSU soil scientist, have developed a technique for putting down a layer of asphalt two feet below ground level.

The two began working on the idea seven years ago when they noticed that certain areas of Michigan produced a high yield of crops from loose, sandy soil. They discovered this soil was productive because of a natural layer of clay which acted as a “hardpan” to retain moisture. “We decided to mimic these soils,” said Erickson.

They first tried placing a layer of clay under the soil and when this failed, they even tried sheets of polyethylene two feet below ground. Both of these attempts failed as water leaked through holes or seams, and the crops fared badly.

At the suggestion of the American Oil Co., the researchers began experimenting with asphalt. Once they had perfected their technique, the results were bountiful.

The researchers said recent field trials showed yield increases of cucumbers and cabbage were so great that the cost of putting down the asphalt was repaid in just one season.

The asphalt is put down by a

specially designed shoe which allows an asphalt emulsion to be sprayed two feet under the surface of sand soil. The asphalt hardens almost instantly into a 3/4 inch wide ribbon about 1/8 inch thick. Additional ribbons are overlapped to ensure that the entire layer will be water tight.

In research trials conducted by MSU and American Oil Co., the cost for putting down the asphalt was about \$225 per acre. But, the scientists added, this cost can be reduced with improvements in machinery. Hansen is now working on a machine that will lay down a 10-foot strip. Furthermore, the layer should last at least 15

years before it has to be replaced.

Hansen pointed out that about 20 horsepower is needed per foot of sweep of the asphalt under two feet of sand soil. He added that when the process is expanded commercially, the job will probably be performed by a custom operator skilled in the use of asphalt and the equipment needed to place it under the soil.

So far the asphalt layer has proved effective on cucumbers, potatoes, beans and cabbage and, commented the scientists, should also work on several other crops. The asphalt layer might also be used under ponds or irrigation ditches to prevent excessive water seepage.



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Blackie, the Grand Champion Angus steer from the 1966 International Livestock Exposition, will be on display in the Livestock Judging Pavilion this week. The steer brought Harvey Hartter (right) of Carlock, Ill., \$17,625 in the exposition auction.

Recreation alternative use

Farm land can be advantageously used as an outdoor recreation business enterprise, Emmanuel Van Nierop, assistant professor in the Dept. of Resource Development said.

Outdoor recreation as a business enterprise in Michigan is being featured by the Dept. of Resource Development at the 1967 Farmers' week.

Speakers representing different aspects of outdoor recreational enterprises have been invited to speak, Van Nierop said.

"Some of the farming areas of Michigan have been converted to outdoor recreational enterprises because of the competition among farmers and the high cost of mechanical equipment," Van Nierop said.

"Sometimes it is more profitable for the farmers to convert their lands into golf courses

or some other type of recreation business, as for example horseback riding," Van Nierop said.

"Often the farmer may use his land for both farming and recreational enterprises", he said.

In a survey conducted by the State Soil Conservation Committee and compiled by Van Nierop, approximately 3,000 outdoor recreational enterprises using up about 300,000 acres of land were listed.

Some of the people invited to speak are John Bintz of Apple Mountain Ski Area and Knight Webster of Upland Hills Farm, Oxford who will speak on rural recreation.

Lewis Moncrief, of the MSU dept. of Resource Development will speak on golfing, whereas, Norman F. Smith of the Michigan Dept. of Conservation will speak on future plans for out-

door recreation in the state of Michigan.

Samuel A. Milstein, of the Michigan Dept. of Conservation will give a talk on the design and planning of tent and trailer camping areas.

Louis Twardzik, MSU Extension specialist in parks and recreation, will preside.

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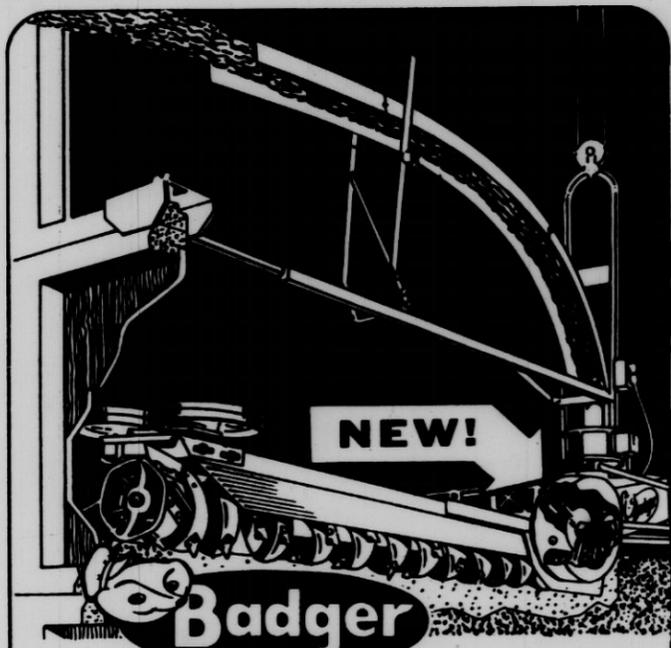
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Ag research gets 'new look'

Establishment of a new experiment station and major changes in research emphasis are part of agricultural research's "new look" in Michigan.

Sylvan H. Wittwer, director of MSU's agricultural research program and assistant dean of the College of Agriculture, has announced major changes in both the location and the nature of several of MSU's 350 research projects in the coming year.

The new experiment station has been established six miles west of McBride in Montcalm County to improve the production and efficiency of crops -- especially potatoes--for processing.

The yield goal for potatoes is 2,000 bushels per acre. Commercial growers today average 600 bushels per acre.

The 80-acre site will also be used to increase production and quality of other crops that might

be grown with potatoes--beans, wheat, corn and horticultural crops.

"The establishment of the new research location in the heart of western Michigan's prime potato producing area is the result of several studies which indicate a great potential for the industry in the state," commented Wittwer, who is also a professor of horticulture.

MSU's Lake City Experiment Station, formerly the center for potato research projects, will now be used to study the feeding, breeding and management of beef cattle, forages and pasture. Wittwer noted that Michigan produces only about one-third of the beef consumed in the state.

"Furthermore, we have a surplus of feed grain which is shipped out of the state that could be used for expanded beef production," he said. "Our main emphasis will be to determine the economic feasibility of developing cow-calf operations, particularly in the northern part of the state where good forages are available."

Another shift in research emphasis will occur in February when an expanded turkey research program will begin at the experiment station near Chatham in the Upper Peninsula. In a series of experiments, poultry scientists will test the feasibility of producing turkey eggs at times during the year when turkeys do not lay eggs further south.

"Our scientists are hopeful that the cooler temperatures in the Upper Peninsula may allow year-around egg hatching and provide continuous supplies of turkeys of various sizes," said Wittwer.

Much of the chicken research now conducted in Chatham will be shifted to the Poultry Science Research and Teaching Center recently established on south campus.

Wittwer also noted that particular emphasis will be given during the coming year to proposed research programs in these areas:

--food science programs aimed at developing new, high quality processed foods and expanding markets for Michigan's food industry.

--natural resources studies aimed at improving the use and



Reverse result

Extra doses of carbon dioxide, a gas which can be fatal to humans, boosted plant growth substantially in greenhouse experiments here. Sylvan Wittwer, director of the Agriculture Experiment Station, points out the normal and treated plants.

Research develops state sorghum uses

Sorghum for silage and feed grain harvest have proved highly successful in the Great Plains area but have been little used in Michigan. Research, however, may develop greater uses for the crops in this state, according to Harold L. Kohls, MSU crop science researcher.

Kohls reports, though, that experimental work on sorghum, both silage and grain types, has been hampered by poor growing seasons for past two years.

Compared with corn silage, sorghum silage production did not average as high in total grain content, he said. Corn silage averaged 40 per cent weight in grain, while grain in grain sorghum accounted for only 28 per cent of the total dry weight.

Some experimental grain sorghum plots yielded as high as 160 bushels an acre when the heads were protected from birds. Bird damage often is severe in this area and the loss may reach 50 per cent, Kohls said. Five different varieties yielded 150 bushels or more per acre in one year trials.

Kohls believes further tests may show grain sorghum for feed

grain has a future on some Michigan farms, particularly where drought is a problem in corn production. From early May to mid-June, he plans to plant two varieties of both corn and grain sorghum at four time intervals in fields near Vicksburg.

"We have a fairly good idea of how the different varieties will do," Kohls said. "We will be obtaining the comparative yields under various dates of planting to determine the optimum time of planting for each."

Kohls expects greater yields of corn in early May and greater yields of grain sorghum in late May or early June. He said the experiment will probably be run for another two years to allow for seasonal variation.

This research is necessary before recommendations can be made. Kohls said, however, that grain sorghum does not appear to be suited to droughty infertile soils.

Kohls also said that there is no further research planned on silage sorghum. Corn seems to grow just as well and is higher in grain content.

management of Michigan's forest, water and wildlife resources.

--the soft white winter wheat program to adapt hardy, disease-free varieties, to encourage production of an adequate supply of soft white wheat and thereby expand the milling and break-

fast cereal industries that depend on this wheat supply.

--beef cattle studies designed to strengthen this industry through an improved forage feeding program.

--sod industry research aimed at development of new varieties and reduction of production time, prevention of loss during shipment and expansion of markets for Michigan's producers.

"We are making these changes as the result of findings from Project '80, a two-year scientific look at Michigan's rural potential by 1980," commented Wittwer. "These findings have indicated those areas of Michigan where economic potential is the greatest in terms of the resources now available."

"In some fields, research techniques, methodology, terminology and equipment predominate today that didn't exist 10 years ago," he said. "The challenge for research is to be flexible enough to move with the times--to get ahead and stay ahead."

Meat team

(continued from page 10)

team included Ridgeway, Apple, Maness and Bigelow as the first, third, fourth and fifth high individuals, respectively. In the American Royal, Bigelow finished ninth high among individual competition.

The team then went on to the East National in Richmond. High individuals included: Maness, second; Ridgeway, fifth, and Swiontkowski, ninth.

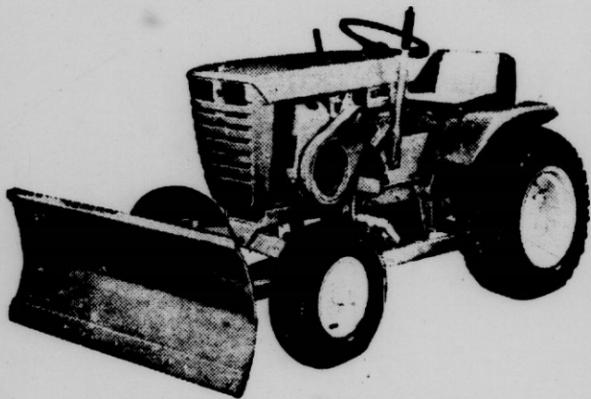
The last competition of the 1966 season was at the International where the team placed 10th among 22 teams.

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Flowers on display Thursday

A "Kaleidoscope of Colors" will be presented by the MSU Floriculture Forum Thursday in connection with Farmers' Week in the University Auditorium.

Students majoring in commercial floriculture will be judged on three arrangements they create. Types of arrangements to choose from include wedding, funeral, hospital, home and novelty arrangements. Judging will be based on the students' ingenuity, originality, design and style. Ribbons will be given to top winners.

Flowers of all kinds will be supplied to the students by state-wide growers. Orders are placed by each student for the kinds needed to complete his arrangement.

All arrangements will be on display in the Auditorium Thursday and Friday.

The highlight of the day will begin at 3 p.m. with a design show presented by the students in the Auditorium. Students and the general public may watch these floriculture students as they design arrangements to be auctioned off upon completion.

"The public can look and see what's being done and what can be done, getting some new ideas for flower arrangement," said Jim Smart, Saskatchewan freshman, a member of the Floriculture Forum.

The flower show will close at 11 p.m.



Floral Art

Floral creations such as this Valentine's Day arrangement will be seen in the Kaleidoscope of Colors in the Auditorium Lobby Thursday and Friday. This work with chrysanthemums was done by Jim Smart, short course student in floriculture.

Photo by John Castle

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Malting barley production being tested in Michigan

Two new varieties of malting barleys, the type used in the manufacture of beer and ale, are being tested in Michigan this year. primarily for brewing purposes in Europe. Six-row barley is the type predominantly grown in the United States.

A winter barley, developed by John Grafius, crop science plant breeder, at the Michigan Agricultural Experiment Station, has been planted on six farms in Cass County. Winter barley is planted in September, allowed to grow through the winter and spring and is harvested in July.

The barley, as yet unnamed, will be inspected throughout the spring growing season by MSU crop scientists and commercial malt barley authorities. When harvested, the barley will be tested by the Richel Malt Co. in Detroit.

Another malting barley will be planted this spring near Alpena and in the Thumb area in eastern Michigan. This barley is of the two-row variety grown

Two other malting barleys are now being grown commercially in Michigan. These are the Larker and Traill varieties. The majority of the barley grown in Michigan, however, are not malting barleys, but are used for feeding.

The development of new barleys is a long and complex process involving the crossing and recrossing of different strains to attain the desired characteristics.

Barley production is a small industry in Michigan, but Michigan Cooperative Extension staff members think it can be developed into a major cash crop. They are working with MSU researchers and farmers in the test growing of this crop.

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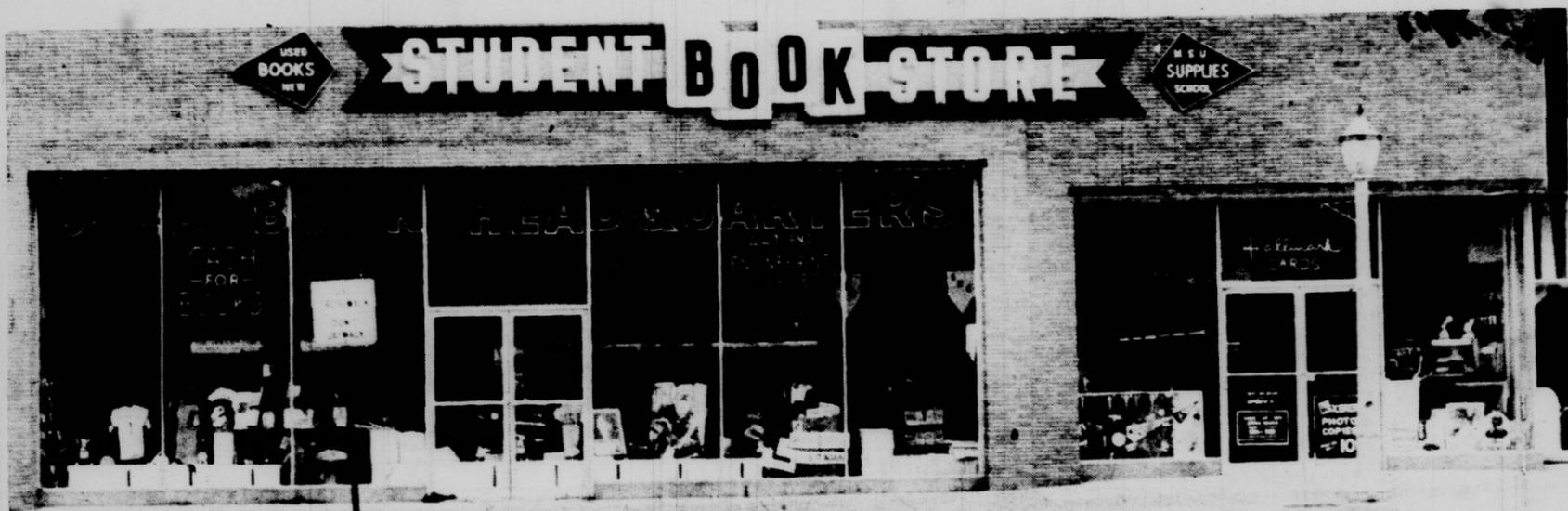
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