

MINUTES OF THE MEETING  
AGRICULTURE, LIVESTOCK & IRRIGATION  
MONTANA STATE SENATE

March 15, 1985

The Agriculture, Livestock & Irrigation Committee meeting was called to order on the above date, in Room 415 of the State Capitol Building, at 1:00 p.m. by Chairman Boylan.

ROLL CALL: All members present.

HB 621: Representative Gay Holliday, HD 31, Roundup. House Bill 621 allows the Department of Agriculture to accept from licensed applicants other financial alternatives such as certificates of deposit in lieu of surety bonding. The proposed changes would provide for the public warehouseman and commodity dealers more options to meet licensing requirements. It would also standardize methods used to conduct financial evaluations for public warehouseman and commodity dealers. The language indicates assets must be valued at original cost less depreciation. However, the record may allow asset evaluation in accordance with a competent appraisal.

PROPOSERS: None.

OPPOSERS: None.

Committee questions: Senator Galt - Would this be bonds for cattle dealers, too, or just warehousemen? Representative Holliday - Just warehousemen.

Senator Lybeck - How about the cattle feeders? Representative Holliday - It is just warehousemen and commodity dealers.

DISPOSITION OF HB 621: John MacMaster, Legislative Researcher, called attention to the Statement of Intent, line 7, Sections 1 through 3. It should say Sections 1-2-6.

Senator Galt moved to amend the Statement of Intent, page 1, line 7, following "1" strike "through 3" and insert ", 2, and 6". Motion carried.

Senator Kolstad moved the Statement of Intent as amended be adopted. Motion carried.

Senator Galt moved HB 621 as amended BE CONCURRED IN. Motion carried.

Senator Galt will carry the bill on the Senate floor.

HJR 32: Representative Dean Switzer, HD 28. This bill was brought about by request of ranchers north of Jordan who graze cattle on the CMR game range and the portion of it which is administered by the Department of Fish, Wildlife and Parks. The Department proposed to raise the grazing fees a dollar this year and the next two years raise fees about another \$3.00, bringing them up to \$8.75. At the same time, the Bureau of

Agriculture  
March 15, 1985  
page 2

Land Management is reducing their fees. These lands are adjacent, intermingled and there can be no rational explanation for one going up and one going down. This is an inappropriate time to be boosting grazing fees when they are in the midst of one of the longest and most severe droughts on record in that area.

PROPOSERS: Representative Switzer noted there is a gentleman at the hearing, from north of Roy, who has been working on the CMR game range areas for about 60 years, and he was sure he could answer any long range questions the committee might have.

Frank Cimrhakl, third generation rancher for 72 years, told the committee his family has run cattle on the CMR game range for about 60 years. Fish Wildlife and Parks is proposing a fee of \$5.61 AUM's per month while adjoining BLM land is \$1.35. This is four times as much. BLM has given them more. They have artesian wells and miles of pipelines. The Russell range doesn't do that. They have the free flowing river and it is almost all fenced --- cattle can't get to it. The grass is about the same and fees are about four times as high. He asked if that was fair.

Representative Bengtson asked how large the CMR range is. Representative Schye told her it is 150 miles long from the face of the dam to the Robison bridge. The CMR range goes out 2 1/2 miles on both sides of the river.

Pat Underwood, Montana Farm Bureau, supported the bill. Exhibit #1.

Representative Ted Schye stood in favor of the bill.

OPPOSERS: None.

Representative Switzer, in closing, said the people on the game range are in a tough situation for grass. It is bad economics to go from \$4.61 to \$8.75 under these circumstances. He hoped the committee could provide some relief.

DISPOSITION OF HJR 32: Senator Conover moved HJR 32 BE CONCURRED IN. Motion carried. Senator Hammond will carry the bill on the Senate floor.

HJR 15: Representative Ted Schye, HD 18, Valley County. The purpose of this bill is to give the message from the Legislature to the experiment stations and extension service that they start providing research and information in sustainable agricultural practices within the current resource limits. It is intended to acknowledge the cutting of input costs and that land stewardship have a place in State research along with practices that have gotten agriculture where it is today.

Agriculture  
March 15, 1985  
page 3

Farmers and ranchers are trying as hard as they can to keep their heads above water and trying everything they can to limit costs, but they need research in these things telling them the best way to get these crops off with the least bit of cost.

PROPONENTS: David Oien, farmer and beef producer from Conrad. Total testimony, Exhibits #2 and #3. Mr. Oien presented testimony from Milo J. Todd, Bozeman, MT., who was unable to be present. Exhibit #4.

Richard Thieltges, dry land farmer in the Chester area. He farms 4500 acres across the Marias River. Testimony, Exhibit #5.

Ed Butcher, rancher in Fergus County, Winifred. Testimony Exhibit #6.

Terry Murphy, Montana Farmer's Union. At their annual convention in October 1984 they adopted a resolution endorsing the program described in this type of legislation. Cost effectiveness and maximized yields, ten years ago, went hand in hand but is no longer so. The USDA released figures for the next 2 years and by 1991 will only be back to present levels. That mandates some reduction in costs. Perhaps this kind of research will find ways to do that. There are no special appropriations with it.

Jim Welch, Dean of Agriculture and Director of the Agricultural Experimental Station at MSU. The Agricultural Experimental Station is concerned about sustainable agriculture. Their concerns come from two areas. 1) Environmental. More and more stress has been put on the agricultural system from the standpoint of impacts on the environment through the use of chemicals and soil and water erosion type activities. 2) Cost of production issue. Agricultural products are produced at a cost higher than we can sell them. Regarding sustainable agriculture, he hoped the committee would not draw conclusions from preceding comments that the Montana Agricultural Experiment Station has not addressed these issues. In the plant breeding and genetics area they have developed new varieties that have genetic resistance to particular pests and diseases. This is a form of chemical reduction because if the pests cannot be addressed genetically, they must be addressed in some other manner. Regarding nitrogen sources, the Australian method, called lay farming, he said they have had some research on that line and will be continuing with research investigating the application of that particular farming system under Montana conditions. 3) The biological control program. Alternative methods of controlling weeds and insects that may be pest problems in the State by systems other than chemical application or by severely limiting chemical applications. This has been a major component of their program for some time. Recently there was a conference on

the campus that addressed sustainable agriculture. He was asked to provide an Experimental Station position relative to this subject. The document, Exhibit #7, are his comments at that conference and it addresses some of the issues we have just heard. He had two closing comments. 1) They believe they can work together with the sustainable agriculture people, repackage and redirect some of their resources to place more emphasis in this area. 2) The comments you have heard tend to support the concept of the value of agricultural research and he hoped the committee would keep that in mind as they go into the session.

OPPONENTS: None.

Committee questions: Senator Williams asked Bob Riley, Stanford, to comment. Mr. Riley - Three years ago they did a survey along the foothills of the Belt mountains. They surveyed 18 ranchers regarding the cost of their spraying application plus chemicals. It came to \$112,000. One of them had a \$15,000 airplane bill alone. It cost him 11 cents a pound for every pound of beef he sold. Charlie Russell once said they put the buffalo on the nickel and that is darn small money for so much meat, Mr. Riley said. The Legislature gave them \$90,000 last year. He thought that was small money for what it is costing. These guys are on their knees, they're begging for help. He didn't know which way they would go. The 1983 total herbicide bill for the State of Montana, which was only 80% complete, came to twenty four million dollars; 99% of that money leaves the state and is gone. That price has gone up since 1983.

Senator Williams called on Claude Albers to say a few words about what he has been doing along this line. Mr. Albers handed the committee information on a product he has been using for 20 years. Exhibit #8. He said he had tested it on his own and had some very positive results in the livestock industry. He had trouble getting his product to market. He was told he had to have the product tested by a reputable individual but was unable to get it tested at Huntley. He thinks the bill should be passed and some teeth for people like him put in. He spent 9 years on two herds of holstein cows, with mastitus, using this product (exhibit #8), with no loss of milk. He went to a dairyman last spring to see if he would oversee a test but was told no. He thought the bill should be financed because, with the present method, he doesn't have the money to have his product tested. A ranch with saline seep had 4 applications and they have been farming it ever since. The costs for this has been less than \$2 an acre. He said he has been waiting 20 years to unload this product.

Senator Williams - How much of this do they have in the area?  
Albers - 80 million ton on about a third of it. It runs about 2 1/2 miles along the creek on both sides. He didn't know how consistant it was but some veins run about 24 feet

deep.

Senator Bengtson to Mr. Albers - Are you telling us you have a deposit of these minerals you have tested and they are successful and you are not getting cooperation from the Agricultural Experimental Station? Albers - yes. Senator Bengtson then asked Mr. Welch if this is so great, why aren't they using this? Albers - Mr. Welch hasn't been at this too long. I haven't talked to him about this. Welch - I visited with Mr. Albers at lunch. I will have to go back and look at the historical basis for the interaction with the people at the Huntley research center. His knowledge based on this particular incident is not very good but he will go back and look at it.

Senator Aklestad - Due to budget cuts where they are trying to close down half your operations, are you able to prioritize your work load to work this in? Welch - We have worked closely with the sustainable agricultural people trying to address the issue. 1) We need to work out questions needed to be asked as a research program. 2) Research in the cropping systems area that is being developed and restructured at the present time has many components that can be packaged to address some of these issues without much, if any, additional cost. There are some areas already being addressed. It comes down to packaging the information in certain areas. It is the Department's opinion that, assuming the present resource level stays where it is, they can address a number of these issues in the context of the activities.

Representative Schye, in closing, said a month or so ago there was an article in the Great Falls paper saying agriculture was in trouble for the next 6 years. He feels agriculture will come out of it but he thinks they need help in the meantime and they need to get those input costs down to keep us through and see the light at the end of the tunnel.

DISPOSITION OF HJR 15: Senator Williams moved HJR 15 BE CONCURRED IN. Motion carried. Senator Conover will carry the bill on the Senate floor.

DISPOSITION OF HB 716: Senator Boylan reminded the committee that on Monday they stripped the House Amendments and put the bill back in its original form.

Senator Aklestad asked if there was a suggestion to have the State help pay for control of weeds on State land. Senator Galt replied they were asking them to do it, but he didn't think they have been doing it. The Governor was interested in the bill and was willing to put one million dollars of the legacy money into the fund.


Senator Lybeck - Page 4, line 14 - There was some discussion they didn't feel a teacher of biology was the person to have

Agriculture  
March 15, 1985  
page 6

on the Board. Senator Galt - The law said, several years ago, they must have a teacher of biology because they thought a local highschool biology teacher, who had a knowledge of weeds should be in there but not many biology teachers wanted to spend their time on county roads.

Senator Williams moved HB 716, as amended BE CONCURRED IN. Motion carried. Senator Williams will carry the bill on the Senate floor.

There being no further business, the meeting adjourned.



SENATOR PAUL F. BOYLAN, Chairman

ROLL CALL

AGRICULTURE, LIVESTOCK & IRRIGATION COMMITTEE

49th LEGISLATIVE SESSION -- 1985

Date 3-15-85

SENATE  
SEAT

#

	NAME	PRESENT	ABSENT	EXCUSED
1	SENATOR GARY AKLESTAD	✓		
27	SENATOR ESTHER BENGSTON	✓		
35	SENATOR JACK GALT	✓		
34	SENATOR H. W. (SWEDE) HAMMOND	✓		
10	SENATOR ALLEN KOLSTAD	✓		
38	SENATOR LEO LANE	✓		
78	SENATOR RAY LYBECK	✓		
31	SENATOR ELMER SEVERSON	✓		
39	SENATOR BOB WILLIAMS	✓		
29	SENATOR MAX CONOVER, V. CHMN.	✓		
50	SENATOR PAUL BOYLAN, CHAIRMAN	✓		

Each day attach to minutes.

DATE

3-15-85

## COMMITTEE ON AGRICULTURE

## VISITORS' REGISTER

NAME	REPRESENTING	BILL #	Check One	
			Support	Oppose
Frank Cimrhakl	Ranch	HJ	X	
MT Underwood	MT. FARM BUREAU	HJR 32	X	
Richard Thelley	Farmer	HJR 15	X	
Jim Welsh	MSU	HJR 15	X	
W. Alfors	W. Mineral	HJR 15	X	
Jack Stanley	Rancher & Miner	HJR 15	X	
Jim Sampson	Farm & Dairy	HJR 15	X	
David Oien	AERO	HJR 15	X	
Al Kuehn	Helena AERO	HJR-15	X	
Ed Butcher	Self - Rancher	HJR-15	X	
R. Bryson	M. Dept	HJR 21		
Tom Munday	MT. Farmers Union	HJR 15	X	
Steve Duggan	mt. Stockgrowers mt. Ass of Grazing Districts	HJR 32	X	
Scott Egan	Stanford	15	X	
Billie	11			



NAME: PAT Underwood DATE: MAR 15, 1985

ADDRESS: 502 S. 19th AVE

PHONE: 406-587-3153

REPRESENTING WHOM? MONTANA FARM BUREAU

APPEARING ON WHICH PROPOSAL: HJR 32

DO YOU: SUPPORT?  AMEND?  OPPOSE?

COMMENTS: The Montana Farm Bureau Federation supports this resolution. The Federal Government needs all the messages it can get regarding grazing on public lands. This is not the time for any attempt to be made to raise any of these fees. Please pass this resolution.

Pat Underwood



Exhibit # 2

**Alternative Energy Resources Organization**

324 Fuller — Room C-4, Helena, Montana 59601

406-443-7272

Mar. 15, 1985

TESTIMONY before Senate Agriculture Committee on  
HOUSE JOINT RESOLUTION-15

Mr Chairman, members of the committee:

My name is David Oien. I am a farmer and beef producer from Conrad. On behalf of the Alternative Energy Resources Organization and those who drafted this resolution, I would like to give a summary of the justification for the introduction and passage of HJR-15.

A FACT SHEET for the resolution has been provided for each of you. It presents some statistical background to the resolution itself, and I hope you will take a careful look at it during your considerations. Rather than reiterate all of that specific data now, I will try to answer a few general questions which might be asked of the resolution, and I would invite your specific questions afterwards.

First, WHAT DOES THIS RESOLUTION DO? As the title and text indicate, HJR-15 requests the Montana Agricultural Experiment Station (and also the Montana Cooperative Extension Service) to begin to develop research and information programs in sustainable agriculture-- in other words, in farming and ranching systems which emphasize long-term economic and agronomic viability. This would include reducing our over dependence on expensive chemical- and energy-intensive practices, and it would include developing cost-effective alternatives such as soil building crop rotations, alternative pest controls, nutrient recycling techniques, and energy-efficient and low-chemical options that are appropriate for Montana agriculture.

WHAT DOES THIS RESOLUTION NOT DO? It does not ask for special or extra allocations or appropriations. It does not do this because: a) it would be foolish to do so given the current budget situation, and b) more importantly, it is premature to launch specific projects because currently no one knows exactly what those needs are nor the most practical and efficient way of generating and dissemination the information. The first step is to find out what needs to be done and what can be done within current resource limits.

WHY IS RESEARCH AND INFORMATION ON SUSTAINABLE AGRICULTURE NEEDED? I will refer you to the FACT SHEET for the specifics on this question. But I can summarize the argument quite simply: 1) The costs of fertilizers, agricultural chemicals, and other off-farm inputs are becoming increasingly expensive and giving proportionally less in return. EXHIBIT A at the end of the FACT SHEET illustrates this dramatically--fossil fuel-related expenditures by Montana farmers and ranchers increased almost 150% between 1964 & 1974. Expenditures for synthetic fertilizers increased the most--over 400%. Between 1975 and 1980 energy-related costs for agriculture products tripled.

Neither yields nor prices kept pace. 2) Over-reliance on conventional agricultural practices has led to increased soil erosion, loss of soil organic matter, the contamination of ground and surface water, pesticide residues in wildlife and food, anti-biotic resistant bacteria, and documented health risks for farmers. And 3) it is simply unwise to base our agricultural productivity on limited resources, the supply and price of which we have no control.

IS A SUSTAINABLE APPROACH FEASIBLE? Again, I refer you to the FACT SHEET. Especially, EXHIBITS B,C,D,E. As the tables indicate, sustainable agriculture practices can result in substantial energy savings, lower input costs, comparable or even better yields, and equal or greater net returns. These are primarily Midwest figures. Unfortunately, no similar studies have been done in Montana, but the fact that a number of Montana farmers and ranchers have relied on similar sustainable approaches for a number of years, and even decades, indicates that such practices hold promise here as well.

IS SUSTAINABLE AGRICULTURE INFORMATION NOW AVAILABLE THROUGH THE EXPERIMENT STATION AND EXTENSION SERVICE? By and large, the answer is no. It is simply not an area that has received much priority.

This is not to say that the Experiment Station does not do good research nor that Extension does not have good programs, nor even that none of it applies to a sustainable agriculture. In fact, Montana is widely known for Jim Story's work on biological control of range weeds, and for Jim Sims' very promising research suggesting that dryland grain farmers can grow their own nitrogen with legume rotations. Nor does it say that there is no interest at MSU or elsewhere. Dr. Welsh of the Experiment Station, Dr. Hoffman of Extension, and Keith Kelly of the Department of Agriculture have all expressed their support of this resolution and their interest in helping out where they can.

What I would suggest, however, is that low-chemical, resource-efficient agriculture has not been getting the attention it deserves. For example, the State of Montana spends \$40,000/ year to teach agriculturalists how to use pesticides, but it spends literally nothing teaching them how to not use them. We spend millions of dollars to find out how to raise the most bushels of wheat using expensive forms of fertilizer and herbicides, but we spend virtually no money to find out how wheat could be raised using none at all. Likewise, Extension agents and specialists can rattle off application rates all day, but few can help the farmer who would rather plant a green manure crop, use rotations for weed and disease control, and use trap crops to combat grasshoppers. Someone from Stanford said it much more eloquently than I recently in a letter to a number of legislators and administrators. The letter focuses on weed control, but the sentiments could apply to other areas as well. (See attached letter).

As this letter suggests, the predicament we are in is not the fault of any one person or program or agency. We are where we are due to a set of complex and long-standing circumstances. In any case, the task at hand is not to find blame, but to begin to address some of these problems in a determined and cooperative fashion.

THEN WHAT WILL THIS RESOLUTION ACCOMPLISH? First, it will acknowledge that cutting costs, reducing dependence on non-renewable resources, and promoting land stewardship have a place in Montana's agricultural research and extension programs. Second, it will add impetus to a process already begun, whereby MAES and Extension will examine their current and future programs in light of the concerns expressed in this resolution. And finally, it will begin to open the door for researchers, graduate students, and farmers and ranchers of this state to consider agricultural practices and approaches that will assure continued productivity and sustained economic viability for generations to come.

Thank you.

Judith Basin County  
Weed Control District

Court House  
Stanford, Montana

February 1, 1985

TO: Representative Gene Ernst                      Senator Jim Shaw  
Representative Rex Manuel                      Keith Kelly, Dept. of Ag.  
Representative Dorothy Bradley                  Senator Jack Calt  
Wayne Pearson

FROM: William A. Reilly  
Judith Basin County Weed Supervisor

*W.A. Reilly*

Enclosed are some figures that we have put together. I think you will find them interesting and an "eye opener."

We have got to do more research on biological control!

We ran a survey three years ago on what it cost 18 farmers and ranchers on the "out-of-the-pocket" costs caused by weeds. This cost included chemical and application costs. It came to \$112,000.00 for the 18 of them. They simply cannot afford this! They have been on their knees begging for help and we have been letting them down someplace. With figures like these, we sure aren't spending much for a common sense control.

WAK/alp

Enclosures

CC: Governor Theodore Schwinden

*Natl Ctr.  
For Food & Ag Policy*

STATE OF MONTANA  
DEPARTMENT OF AGRICULTURE  
ENVIRONMENTAL MANAGEMENT DIVISION  
AGRICULTURE/LIVESTOCK REG. 444-2944  
CAPES DIVISION  
MONTANA, MONTANA 59715

GENERAL  
INQUIRY  
1-800-552-1234  
CARY GINGERY  
1000 STATE  
1000 STATE

January 29, 1985

MEMORANDUM

TO: Bill Reilly  
FROM: Cary Gingery  
RE: 1983 Herbicide Sales

Montana Department of Agriculture's 1983 sales records show the following breakdown in herbicide sales:

Total:	8,729,107 pounds	\$ 7,969,710
	625,427 gallons	<u>16,537,324</u>
		\$24,557,104

Herbicides Used Primarily on Cropland:

	8,675,114 pounds	\$ 7,739,316
	195,327 gallons	<u>6,529,764</u>
		\$14,268,080

Please remember that this data includes only 80% of the total sales records received by the department.

cmr Szlos



## Alternative Energy Resources Organization

324 Fuller — Room C-4, Helena, Montana 59601

406-443-7272

Exhibit #3

Mar. 15, 1985

From: DAVID OIEN

### FACT SHEET on HJR-15

Purpose of HJR-15 is to give a message from the legislature to the Montana Agriculture Experiment Station and the Montana Cooperative Extension Service that they start to provide research and information in sustainable agriculture practices within their current resource limits. It is intended to acknowledge that cutting costs, reducing dependence on non-renewable resources, and promoting land stewardship have a place in this state's agricultural research and extension programs.

Definition of Sustainable Agriculture: Those farming and ranching practices which promote 1) economic viability by cutting input costs; 2) sustained productivity through good soil stewardship and animal husbandry; 3) conservation of our precious water, soil and water resources and 4) compatibility with the surrounding human and natural environment.

#### The Problem:

##### 1) Increased Use and Cost of Commercial Fertilizer

In the past decade, while total land under cultivation in Montana has remained essentially unchanged, total use of nitrogen, phosphorus and potash fertilizers has increased over 200%. And while the cost of commercial fertilizer products have increased from 100% to 300% since the mid 1970's, between 1975 and 1982 (two relatively good years) average yield increases were only 12% for wheat, 26% for barley, 16% for oats, 13% for alfalfa hay.

o Total use of nitrogen fertilizer in Montana increased from 36,000 tons in 1975 to 134,000 tons in 1983 -- over 270% increase. In the early 70's, nitrogen cost about 12 cents per pound, today it is 18-24 cents per pound;

o Total phosphorus use increased from 45,000 tons in 1975 to 86,000 tons in 1983 --90% increase. Ten years ago, phosphorus fertilizer cost about 8 cents per pound, today it is 22 cents per pound.

o Potash use in Montana has increased 300% in the past decade-- from 3,000 tons to almost 12,000 tons. Potash also cost about 8 cents per pound in the mid 70's, today it costs 12 cents per pound.

o It takes a lot more money to buy the same product today as 10 years ago. For instance, the commercial fertilizer 11-53-0 cost \$99/ton in 1973 -- it now costs over 100% more, \$235/ton; and 16-20-0 fertilizer, which sold for \$76/ton in '73, now costs \$200/ton -- nearly 3 times as much.



## 2) Increased Use and Cost of Pesticides

o According to the Montana Department of Agriculture 1981 Pesticide Survey, Montana agriculture in that year used the equivalent of over 4 million gallons of herbicides, over 600,000 gallons of insecticides, and over 300,000 gallons of other pesticides.

o U.S Department of Commerce figures place the cost of pesticides used in Montana in 1979 at \$28,000,000.

o Montana Department of Agriculture reports that 1983 sales of just herbicides totalled over \$24,000,000, with herbicides used primarily on cropland totalling over \$14,000,000 (these figures represent only 80% of the sales records received by the department).

o Doanes' Agricultural Report issued the week of January 28, 1985, predicts costs for fertilizers and pesticides for northern great plains cereal grain production will account for 30% of a farmer's variable costs.

## 3) Increased Use and Cost of Fossil Fuels

Montana agriculture is an increasingly energy-intensive enterprise, and as it is presently practiced is vulnerable in the face of either increased costs or decreased supplies of energy.

o According to the Department of Natural Resources and Conservation's Resource Conservation Plan 1981-1985, in the last 30 years farm output has doubled while fuel consumption has more than quadrupled -- meaning that farm output per gallon of fuel has declined by half.

o Energy costs for Montana agriculture nearly tripled from 1975 to 1980. (source--The Montana Food System: Lessons in Sustainability)

o The largest share of energy consumed by agriculture in Montana is for pesticides and fertilizers (44%), followed by field operations (23.3%) and farm vehicle use (22.8%).

## 4) Decline in Soil Fertility and Related Problems

o According to Paul Kresge -- former Extension Specialist at MSU -- the organic matter of most of our prairie soils has declined significantly. Soils that were once 4% organic matter are now often down to 1% or less with less than 100 years of farming. This has meant a loss of nutrient reserves (hence the requirement for more commercial fertilizers), loss of water holding capacity, the loss of soil structure and tilth.

o Soil erosion: In 1983 Montana was in the top five for "States with the worst erosion". In Nov.-Dec. 1984, Montana had the second worst erosion problem in the nation, with wind damaging over 711,000 acres in eastern Montana.

o According to the Soil Conservation Service, much of our state is losing top soil 3 to 5 times faster than it can be replenished.

## 5) Pesticide Resistance

o Between 1970 and 1980, the number of harmful insect pest species increased from 224 to 428, internationally. Resistant bacteria and fungi species grew from 20 to 150 between 1960 and 1984. More than 50 species of weeds have been identified as being herbicide resistant (source--World Resources Institute, 1984 Report).

## 6) Consumer Food Safety

o A survey of consumer trends by the Food Marketing Institute found that more than 75% of the American public consider pesticide residues in their food a serious hazard. (By comparison, this survey found 43% considered cholesterol a serious hazard, and about one third considered additives and preservatives to be serious hazards.)

o In 1984, the Center for Disease Control established a definite link between antiobiotic-resistant diseases in human beings and subtherapeutic antibiotic feed additives for livestock.

### The Promise:

1) Research in sustainable agriculture practices has been developing over the last two decades. The attached charts suggest the viability of sustainable agriculture operations in cutting production costs and maintaining comparable yields to conventional operations. (These figures are derived from studies conducted primarily in the Midwest. No similar studies have been done in Montana.)

2) According to the National Integrated Pest Management Coordinating Committee testimony at the Hearings on the Federal Agricultural Productivity Act of 1983: "Since the early 1970's, implementation of integrated pest management practices has dramatically reduced pesticide use on some commodities and has improved the efficiency of production and economic returns for the farmer." The testimony went on to document examples in the U.S. and abroad where agricultural land that had actually been abandoned due to insect or weed infestations was returned to production through biological control and integrated pest management techniques.

3) The potential for low-chemical, sustainable agriculture is tremendous. A 1980 report by the U.S. Department of Agriculture estimated that there are at least 24,000 such operations nationwide and that continuing economic and environmental pressures would suggest that this number will continue to grow.

4) The few areas of sustainable agriculture research presently being conducted in Montana (e.g. biological weed control, nitrogen-fixing crop rotations for dryland) show great promise and are receiving national attention.

The Need:

The development of sustainable farming and ranching systems through a long-term, comprehensive research and information program that addresses crop rotations, efficient resource use, reduction of synthetic fertilizers and pesticides, rebuilding of soil productivity, and the re-establishment of economic viability for Montana agriculture.

This Resolution has the support of:

- o The Montana Agriculture Experiment Station (Dr. James Welsh)
- o The Montana Cooperative Extension Service (Dr. Carl Hoffman)
- o The Montana Department of Agriculture and the Governor's Office

## FOSSIL FUEL-RELATED COSTS FOR AGRICULTURAL PRODUCTION IN MONTANA

### EXHIBIT A

	1964	1974
Gasoline	\$19,858,653	\$30,491,000
Diesel oil	5,999,430	15,142,000
LP gas, butane, and propane	976,763	2,472,000
Motor oil, grease, fuel oil, and kerosene	2,965,605	4,374,000
Commercial (synthetic) fertilizer	7,466,191	38,685,000
<b>Total</b>	<b>37,266,642</b>	<b>91,164,000</b>

Source: U.S. Department of Commerce, 1969, 1974.

### EXHIBIT B

### ENERGY INPUT SAVINGS ON ORGANIC VS. CONVENTIONAL FARMS

Table 4.7.3 Comparison of energy inputs per acre for different crops for organic (Org) and conventional (Conv) farms<sup>1</sup>

Crop	Fuel		Fertilizer		Total		Net Energy saved <sup>2</sup>
	Conv	Org	Conv	Org	Conv	Org	
	<u>k cal X 10<sup>3</sup></u>						
Winter Wheat (NW) <sup>3</sup>	331.5	513.3	476.2	176.4	807.7	689.7	15%
Winter Wheat (NE) <sup>4</sup>	242.0	210.1	332.9	28.9	574.9	239.	58%
Barley	329.4	522.2	394.4	21.8	723.8	544.	25%
Spring Wheat	414.0	509.5	664.0	60.0	1078.0	569.5	47%

<sup>1</sup> Adapted from Berardi (2) and Kraten (3).

<sup>2</sup> Derived by the formula:  $\frac{\text{Total Conv} - \text{Total Org.}}{\text{Total Conv}}$

<sup>3</sup> Northwestern United States.

(source- USDA REPORT AND RECOMMENDATIONS  
ON ORGANIC FARMING, 1980 ,p.52)

<sup>4</sup> Northeastern United States.

## EXHIBIT C

## YIELD COMPARISONS ON MIDWEST FARMS

Table 4.7.5 Organic and conventional average crop yields, western Corn Belt, 1973-76.

Crop	Conventional <sup>1</sup>	Organic <sup>2</sup>	
		Bushels per acre	
Corn	78		75
Soybeans	28		32
Oats	47		64
Wheat	34		34

<sup>1</sup> Five-State average yields reported by Statistical Reporting Service (SRS).

<sup>2</sup> Weighted average yields based on production years 1973 through 1976 (5).

54

(source-- USDA REPORT & RECOMMENDATIONS ON ORGANIC FARMING, 1980 . p. 54)

## EXHIBIT D

PRODUCTION COSTS  
AND NET RETURN  
COMPARISONS FOR  
MIDWEST FARMS

(source--ORGANIC  
FARMING: ITS  
CURRENT TECHNOLOGY  
& ITS ROLE IN A  
SUSTAINABLE AG.  
1984. American Society  
of Agronomy p. 41)

Table 1. Economic performance of organic and conventional farms. The data are averaged over all cropland (including rotation hay and pasture, soil-improving crops, and crop failures).

Year	Value of production (\$/ha)		Operating expenses (\$/ha)		Net returns (\$/ha)	
	Organic	Conven- tional	Organic	Conven- tional	Organic	Conven- tional
1974†	393	426	69	113	324	314
1975†	417	478	84	133	333	346
1976†	427	482	91	150	336	333
1977†	384	407	95	129 <sup>b</sup>	289	278
1978†	440	527 <sup>b</sup>	107	143 <sup>b</sup>	333	384 <sup>a</sup>

† Data from 14 organic and 14 conventional farms (Lockeretz et al., 1978). Statistical significance is not shown because farms constitute a set of case studies rather than a sample from a specified population.

† Data from 23 organic farms in 1977 and 19 in 1978; county-average data for conventional farms (Shearer et al., 1981). Conventional data labelled a or b differ from paired organic figures at the 90 and 99% probability level respectively.

EXHIBIT E PRODUCTION COSTS  
AND NET RETURNS  
FOR ONE FARM IN PENN.  
COMPARED TO PENN. AVERAGE

(source--ORGANIC FARMING:  
ITS CURRENT TECHNOLOGY & ITS  
ROLE IN A SUSTAINABLE AG.  
1984. American Society of  
Agronomy. p. 6)

Table 1. Crop production costs for the Brubaker Farm, 1981, as compared to the average for Pennsylvania.

	Corn	
	Organic	Average
Variable cost (\$ ha <sup>-1</sup> )	186.0	289.0
Average yield (Mg ha <sup>-1</sup> )	8.15	6.2
Variable cost (\$/t)	22.81	45.96
Market price (\$/t) (Avg. Lancaster)	103.0	103.0
Net return over variable cost (\$/t)	80.19	57
Net return over variable cost (\$/ha)	653.79	35

† Dum, S. A., F. A. Hughes, J. G. Cooper, B. W. Kelly, and V. E. Crowley, 1981. Pennsylvania Farm Management Handbook. The Pennsylvania University, University Park, Penn.

Exhibit #4.  
March 13, 1985

Senator Paul Boylan, Chairman and Members of the  
Agriculture Committee

HJR 15  
Mar. 15, 1985

I am primarily a Dairy Farmer. I still live on and farm the place where I was born. We still farm the land my Grandfather homesteaded. We share crop an additional 490 acres of irrigated ground six miles away.

We milk approximately 70 cows and have a small band of sheep (about 75 head) on the home place of 300 acres.

My youngest son, a 1983 graduate of M.S.U. in Agriculture Science, and his wife are working into the overall farming operation and plan to continue this family farm.

After graduating from M.S.U. in 1954, I returned home to the family dairy and farm. As chemical fertilizers became more available I began using a limited amount of them. It was easy to run through the fields with the fertilizer applicator, but I began to notice it required more and more fertilizer every year to get the same yields as the year before. I also noticed more weeds in the crops and that the angleworms were gone.

Approximately ten years ago I stopped using commercial fertilizers, over a period of time, on the home place. I started using crop rotation, collecting and spreading all the manure from the dairy herd, using some surfactants and better irrigation, etc. Through the years the organic matter content of the soil has improved. The angleworms are back, the yields have been good. Last year we harvested 133 bushels per acre of 40#/bu. oats off of 30 acres without chemical fertilizer.

The Homestead place, which is dryland, and the share cropped land is too far from the dairy to haul manure. We have been trying some rotation of crops on this ground, however, we are limited as to crop selection. Barley and wheat or wheat and barley. This is where the University Experiment Station could be of great help through more research toward crops that can be grown in our short season (irrigated and dryland) and also to help put nutrients back into the soil through crop rotation.

I believe the M.S.U. Experiment Station could be a great asset to the farming industry of the State of Montana by doing more research on lower chemical use; nitrogen fixing crops; crop rotation; organic matter in soil relative to yield; micro-organisms and their place in the soil. Less chemical dependence on fertilizers, herbicides, pesticides and insecticides.

I have come to believe that chemical fertilizers kill micro-organisms activity in the soil. Without micro-organism activity there is less break down of organic matter. This lowers the productivity of the soil and leads to chemical dependence.

On ground that has had heavy application of chemicals for several years it is not feasible nor profitable to quit using the chemicals "cold turkey". A few years ago I tried completely quitting chemical application in one year on one place. I hardly produced enough crop to pay for the seed and harvesting. Here again, this is why we need some more applicable research data available in this area.

I believe that the increased and careless use of chemical fertilizers, herbicides, pesticides and insecticides is a contributing factor in our nations health problems today, such as cancer, heart attacks, strokes, etc.

Finally, a quote from 'Healthier Herds, Productive Soils Naturally' by Dale Grondahl.

"In the past 40 years we saw a change to chemical farming. High priced chemicals have caused money problems (debt) for many farmers. Now we are seeing the next major change, a move back to encouraging greater biological activity. It's more natural, it's safe, it's economical, it produces more nutritious feed and food for livestock and man, and it will assure our children of a more productive soil than this generation received from their fathers. We must turn our farming around to this or we will see a very unhealthy generation in a few years."

Respectfully submitted,

*Milo J. Todd*  
Milo J. Todd  
24427 Norris Road  
Bozeman, Montana 59715

# Stewardship means caring and protecting

By SALLY HILANDER  
Farm & Ranch Editor

~~8020m~~  
BELGRADE — Dairyman Milo Todd figures he's the steward of his land, not the owner.

"It still belongs to the Lord. It's our responsibility but it's not ours to do with whatever we want."

That belief is bound to influence how Todd cares for the 300-acre farm near Belgrade that's been in his family for four generations.

Chemical fertilizers that deplete and harden the soil aren't part of his scheme: He is in transition from chemical to organic farming.

"I've lived here all my life. Dad was born just over the hill there," Todd said quietly during a recent interview in the farmhouse in which he was born. "I want this place to go to one of our boys."

Todd is no dewey-eyed idealist. He understands the hard economic realities of farming today and is avid student of the subject. He truly believes farmers can work into organic farming without losing their shirts — or their yields.

He's also worried about erosion, loss of soil productivity caused by chemicals and the high costs of fertilizers and farm equipment.

Todd also believes the day is coming when the public will demand its produce be grown organically.

"The more I read about sustainable agriculture, the more I think we're just beginning to scratch the surface on what's in our soil and how we can use it to our best ability," Todd remarked.

And the more he reads about petrochemical and urea fertilizers, chemical herbicides and pesticides, the less he likes them. "I think they're causing a lot of our health problems today...cancer, heart attacks...There are a lot of unknowns with chemicals.

"I think it (agriculture) is just a legalized dumping ground for the petroleum companies."

Milo Todd and his wife, Carol, first brought chemicals to Jerlay Farms about 25 years ago, when phosphorous and nitrogen fertilizers were state of the art and the negative effects of long-term chemical use weren't known.

But that was then.

About 15 years later, the Todds stopped using commercial fertilizers on the hay, oats and barley crops they rotate to feed their herd of about 67 Holsteins plus 75 head of Suffolk and Polypay sheep belonging to their youngest son, Jeff, and his wife, ~~Kim~~ Kim.

(The young couple will take over the farm when Milo and Carol retire.)

Weaning the family place from chemical fertilizers apparently hasn't hurt. Thirty acres of oat fields produced 4,000 bushels weighing 40 pounds each — "a tremendous yield," Todd said.

The earthworms are back on the garden plot now and Todd views that as a barometer of soil health. "Commercial fertilizers kill micro-organism activity. Without it, there's no breakdown of organic matter and I think we're gradually losing our productability of this ground."

In addition to the 300-acre home place, the Todds

## Farmer wants to wean land from 'chemical dependence'

either lease or "sharecrop" another 650 acres in three separate locations nearby.

Herbicides are still in use, but a good surfactant permits the Todds to use less than the recommended amount of 2,4d or MCPA to control weeds. Todd said he hopes one day to abandon the herbicides by switching to microbacterial-action fertilizers.

Todd is currently devouring literature from the various manufacturers of "natural" fertilizers.

Pesticides have not been used on the dairy or on any of the 950 acres in 10 years, Todd said.

Todd has not succeeded in stopping chemical fertilizer use — yet — on the land he leases or sharecrops. The

areage includes about 160 acres of dryland on which he rotates wheat, barley and summer fallow; the rest is tillable pasture.

"Five or six years ago, I got gung ho and was going to quit all fertilizers," Todd said. "My yields dropped about in half."

He likened the attempt at weaning the land from artificial fertilizers to denying an alcoholic liquor. "When I stopped using it, the ground was looking for it."

But Todd believes he can eventually stop using the chemical fertilizers he finds objectionable. His plan? Proper rotation and the use of microbial fertilizer.



NAME: Richard Threltges DATE: 3/15/85

ADDRESS: Box 290, Chester, MT

PHONE: 759-5722

REPRESENTING WHOM? Self - Advisory Committee Central Excessland St.

APPEARING ON WHICH PROPOSAL: HJR 15

DO YOU: SUPPORT? X AMEND? \_\_\_\_\_ OPPOSE? \_\_\_\_\_

COMMENTS: Sustainable ag means being able to sustain  
lands during these low prices. This bill will help  
encourage researcher to be innovative & give us  
the tools to survive.

Its possible to (1) grow our own nitrogen (2)  
build up organic matter while farming (3) grow profitable  
alternative crops. These things have been achieved  
in other parts of the country, it can be done  
here. This is a first step to turn our researchers  
Loss on the problem.

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

House Joint Resolution - 15 Exhibit #6. Ed. Butcher  
Hearing Rolling Hills Ranch  
March 15, 1985 Winifred, Mont.

I am a cattle and grain farmer who owns a 13,000 acre operation and have become of increasing concern with high input costs of commercial fertilizers and chemical farming, but alternatives have so little research that I feel it is imperative to Montana Agriculture that the land grant colleges do more research in following out the sustainable agriculture movement.

I have had young Australian farmers working on the ranch for six months periods the past few years and am intrigued by their crop rotation programs using legumes, field peas, and other natural nitrogen fixing crops. Outside of super-phosphates they do no fertilizing in the American tradition although the past few years they have been given the hard sell on chemicals. Fertilizer which obviously is increasing their input costs.

I will hope the committee will give a favorable report on this resolution - it is a subject of increasing importance to larger producers to be given research data as an alternative to the mountains of research which has been done for years supporting chemical farming. I have been cutting out commercial fertilizers the past 5-6 years and feel my results have been good, but I would like research on alternative nitrogen, soil sulphur sources, etc. Especially adaptation of natural nitrogen such as legumes, field peas etc. Studies like New Farm did on fertilizer recommended rates from soil tests were ridiculous at best and raises questions concerning commercial fertilizer applications.

Exhibit #7  
HJR 15  
Mar. 15, 1985

301

**MSU's ROLE IN CREATING A SUSTAINABLE AGRICULTURE**

Dr. James R. Welsh  
Dean of Agriculture  
Montana State University

Presented at Montana Sustainable Agriculture Conference  
October 13, 1984

Montana State University has a rich tradition of participation in the national land grant system. As a land grant university, MSU serves the needs of Montana's agricultural community in education, research and cooperative extension. Approximately 1,000 undergraduate and graduate students are enrolled in agriculture. The Montana Agricultural Experiment Station carries out a research program of approximately eleven million dollars annually at the campus located main station and the seven research centers around the state. A statewide network of county extension offices and specialists disseminates information on agriculture and related topics. The main mission of the Experiment Station program is to address the needs of the agricultural community in Montana, in the region, and nationally. As a member of the land grant system, MSU has unique opportunities to participate with other public institutions and industry in appropriate research and education programs.

MSU has conducted teaching and research programs related to sustainable agriculture for many years. The following examples illustrate this type of activity:

1. **Plant breeding and genetics** -- MSU conducts an extremely strong plant breeding and genetics program. The Montana Agricultural Experiment Station and USDA-Agricultural Research Service form a highly productive research team. Major thrusts include the development of new genetic information and the release of new cultivars in several crop species. Production problems addressed by the plant breeding and genetics research programs include disease resistance, insect resistance, winter hardiness, drought tolerance, and improved end product characteristics. Each of these program goals requires the identification and screening of desirable genes for improved plant performance. The incorporation of genetic improvement is highly desirable both from an economic and an environmental standpoint. It is important to remember that plant breeding programs are an ongoing effort, since both the host and pest are dynamic biological organisms capable of inherited change.

MSU also carries on strong plant breeding and genetics training programs for undergraduate and graduate students. A broad spectrum of courses in such areas as genetics, plant breeding, plant pathology, statistics and entomology are incorporated into the course of study for these students. Recent additions to our staff bring in expertise in genetic engineering and biotechnology. Strong emphasis will be placed on training students to use these tools in applied plant breeding programs. Many of our former students now occupy positions of prominence in plant breeding and plant genetic research programs around the world.

**2. Utilization of organic matter to stabilize and improve plant performance** -- MSU plays a strong role in the wise use and management of organic matter. Research areas include high residue cropping systems, annual legumes as alternate sources of nitrogen, the use of crop residues in water management including snow trapping, and the relationship of flexible cropping systems to the control of saline seep. Farming methods are headed for dramatic changes and the Montana Agricultural Experiment Station will continue to be a leader in the development of cropping systems information leading to the wise use of crop residues. The development of a reduced tillage is spreading rapidly across the Great Plains. Montana producers are in the initial stages of evaluating this procedure. Additional information on the problems and possibilities of reduced tillage practices must be developed in the near future.

Undergraduate student training and graduate research programs play a vital part of the MSU mission in agronomy. A broad spectrum of basic and applied courses is incorporated into these training activities. The students are presented with research problems in the field as well as the laboratory to reinforce the practical nature of this problem area. Some students work for, or conduct research on, one of the research centers around the state during their academic careers.

**3. Biological control of weeds and insects** -- Weeds represent one of the most serious economic threats to Montana agriculture today. This is particularly true in rangelands where conventional control practices are often not applicable. We have assembled an outstanding team of weed scientists to deal with ecology, chemical control, biological control and physiology. The 1983 legislature appropriated an additional \$90,000 annually to reinforce the activities of this scientific team.

MSU has mounted an intensive effort to utilize biological control methods for perennial noxious weeds such as spotted knapweed, leafy spurge and Canada thistle. We are cooperating extensively with the Animal and Plant Health Inspection Service and USDA-ARS in this activity. Our scientists have traveled abroad to review overseas laboratories and collect potential insects and diseases which may be valuable in attacking our major weed problems. As a result of MSU research several insects have been released to attack spotted knapweed and leafy spurge. Investigations are also under way to evaluate potential disease control mechanisms for spotted knapweed and Canada thistle. The USDA Rangeland Insect Laboratory located on the MSU campus has been successful in releasing a seed head weevil to combat musk thistle. In addition, they have been instrumental in developing a parasite which is effective in combatting grasshopper populations.

Student training in weed research and biological control is being strengthened on the campus. Entomology is being reformed into a department in the College of Agriculture. Entomology course work is being updated and reinforced and we anticipate a strong graduate training program to emerge in the near future.

A major improvement in agriculture research and teaching programs has recently been achieved. The 1983 legislature appropriated \$5.3 million for a new controlled environment teaching and research laboratory. Construction will start in the spring of 1985. This state-of-the-art facility will strongly reinforce programs in weed research, plant breeding and genetics, range, soils, entomology, plant pathology and other areas important to plant agriculture. The facility will include isolation and quarantine research areas important to biological control activities.

Montana State University will continue to conduct a balanced program in research and teaching relative to modern agriculture. The wise use of appropriate chemicals will play an important role in agricultural production systems of Montana in the foreseeable future. However, an appropriate blend of disciplines will be imperative. A classic example is provided by our weed research and teaching program. As previously indicated, we have an extremely strong biological weed control component. However, we also have the additional components of weed physiology and weed ecology and chemical use. The weed research program utilizes a totally integrated approach to the problem with the clear understanding that a

single solution will not resolve all of the problems. We feel strongly that our students should have a broad based training leading to a realistic and honest knowledge base for their future activities in agricultural fields.

It is apparent that agriculture is undergoing some tremendous upheavals at the present time. Economic constraints will likely force some, if not a major, restructuring of U. S. agriculture. Sustainable agricultural principles will be a significant component of the new U. S. production system provided that they are accompanied by appropriate economic returns. However, it is unlikely that the more traditional approaches to agricultural production will be decreased or eliminated in the foreseeable future. Montana State University will play a vital and important role in providing a well balanced research and education program for the people of the state, as well as the region and the nation. It is our pleasure to participate with you in this conference.

201/83  
10/84

Exhibit #8

HJR 15

Mar. 15, 1985

**N. L. MINERAL**

Grass Range, Montana 59032

*We Deliver!*

Phone 428-2474

Our Phosphoric Acid same as 12 - 13% Phosphate

Iron	Fe <sub>2</sub> O <sub>3</sub>	0.24%
Aluminum	AL <sub>2</sub> O <sub>3</sub>	0.11%
Calcium	CaO	41.70%
Magnesium	MGO	0.19%
Sulfate	SO <sub>3</sub>	23.93%
Carbonate	CO <sub>3</sub>	19.50%
Phosphate	P <sub>2</sub> O <sub>5</sub>	0.04%
Strontium	SrO	0.3%
Titanium	TiO <sub>2</sub>	0.2%
Sodium	Na <sub>2</sub> O	0.05%
Manganese	MN	0.03%
Copper	Cu	.0012%
Chromium	Cr	0.001%
Barium	Ba	0.001%
Silica	SiO <sub>2</sub>	2.2%
Magnesium Carbonate	MGCO <sub>3</sub>	0.40%
Calcium Phosphate	(Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> )	0.09%
Selenium	SE <sub>0</sub>	0.22%

# STANDING COMMITTEE REPORT

March 15

19 85

MR. PRESIDENT

**AGRICULTURE, LIVESTOCK & IRRIGATION**

We, your committee on

having had under consideration

**HOUSE BILL**

No. **621**

third

reading copy (

blue

)  
color

**Holliday (Galt)**

**PERMITS ALTERNATIVE TO WAREHOUSEMAN'S AND COMMODITY DEALER'S BONDS**

Respectfully report as follows: That

**HOUSE BILL**

No. **621**

**be amended as follows:**

1. Statement of Intent, page 1, line 7.

Following: "1"

Strike: "through 3"

Insert: ", 2, and 6"

**AND AS AMENDED**  
**BE CONCURRED IN**

~~XXXXXX~~

~~XXXXXXXX~~  
DO NOT PASS

**PAUL F. BOYLAN,**

Chairman.



# STANDING COMMITTEE REPORT

March 15 19 35

MR. PRESIDENT

We, your committee on AGRICULTURE, LIVESTOCK & IRRIGATION

having had under consideration HOUSE JOINT RESOLUTION No. 32

third reading copy ( blue )  
color

Switzer, (Hammond)

GRABING FEES ON CHARLES M. RUSSELL WILDLIFE REFUGE

Respectfully report as follows: That HOUSE JOINT RESOLUTION No. 32

BE CONCURRED IN

~~XXXXXXXX~~

~~XXXXXXXXXX~~

PAUL F. BOYLAN, Chairman.

# STANDING COMMITTEE REPORT

March 15 19 85

MR. PRESIDENT

**AGRICULTURE, LIVESTOCK & IRRIGATION**

We, your committee on

**HOUSE JOINT RESOLUTION** No. **15**

having had under consideration

third reading copy ( blue )  
color

**Schye (Conover)**

**MONT. AGRIC. EXPER. STATION TO DEVELOP RESEARCH ON SUSTAINABLE  
AGRICULTURE**

**HOUSE JOINT RESOLUTION** No. **15**

Respectfully report as follows: That

No.

BE CONCURRED IN

~~XXXXXX~~

~~XXXXXXXXXX~~

**PAUL F. BOYLAN,**

Chairman.

# STANDING COMMITTEE REPORT

March 15

1935

MR. PRESIDENT

## AGRICULTURE, LIVESTOCK & IRRIGATION

We, your committee on.....

HOUSE BILL

No. 716

having had under consideration.....

third reading copy ( blue )  
color

**Thoft (Williams)**

**GENERALLY REVISING COUNTY WEED CONTROL LAWS**

HOUSE BILL

716

Respectfully report as follows: That.....

No.....

be amended as follows:

1. Page 7, line 4.  
Following: "seed"  
Insert: "or go to seed"
2. Page 12, line 22.  
Following: notified by  
Strike: "CERTIFIED"  
Following: "telephone"  
Insert: "or telephone"

AND AS AMENDED  
BE CONCURRED IN

~~XXXXXX~~

~~XXXXXXXXXX~~

.....  
**PAUL F. BOYLAN,**

Chairman.