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**Plant Pathology**

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DATE: January 24, 2006

TO: Variety Release and Recommendation Committee Members

FROM: John Sherwood, Chairman

Re: 2006 Minutes

Chairman: John Sherwood, Department Head PSPP

Secretary: Irene Decker, Administrative Assistant, PSPP

Present: Jeff Jacobsen, John Sherwood, Mark Majerus, Joe A. Smith, Wendell Morrill, Dan Lake, Luther Talbert, Joyce Eckhoff, Jim Berg, Greg Kushnak, Pat Hensleigh, Susan Lanning, Nancy Blake, Harold Armstrong, Alan Dyer, Mike Giroux, Bear Whitmer, Ron Larson, Qasim Khan, Gigi Opeña, Donald L. Becker, Dale Clark, Fabian Menalled, Perry Miller, Phil Bruckner, Bob Stougaard, Bill Grey, Frank Schoonover, Mal Westcott, Karnes Neill, David Wichman, Dennis Cash, Chengci Chen, Gregg Carlson, Jamie Sherman, Becky Mahurin, Jack Riesselman, Duane Johnson, Tracy Dougher and Irene Decker

**Agenda:**

1. Approval of 2005 Minutes Variety Release and Recommendation Committee(s)
2. Discuss and vote on the motions put forth by the following committees in the order given: Barley, Wheat, Specialty, Horticulture and Native Plants, Forage

***Barley and Oat:***

Tom Blake – MT970116 - barley

***Wheat:***

Luther Talbert - MT 024 - hard red spring wheat  
Joe Smith – Freyr - hard red spring wheat  
Phil Bruckner – Genou – hard red winter wheat  
Phil Bruckner – Jerry – hard red winter wheat  
Phil Bruckner – Paul – hard red winter wheat  
Phil Bruckner – Bighorn – hard red winter wheat  
Phil Bruckner - Tiber and Vanguard – hard red winter wheat  
Phil Bruckner - CDC Falcon, Neeley, and Pryor - hard red winter wheat  
Craig Cook – Ledger – hard red winter wheat  
Craig Cook – Bynum – hard red winter wheat  
Craig Cook – Norris – hard red winter wheat  
Joe Smith – Jagalene – hard red winter wheat

***Specialty:***

Kevin McPhee/C. Chen/D. Wichman – Windham - winter feed pea  
Duane Johnson - MT0301 Whitney - dry bean

***Horticulture and Native Plants***

Mark Majerus – Copperhead selected class germplasm Slender wheatgrass

### **Forage:**

Dennis Cash will give update on the forage winter wheats

### **1. Barley Crop Motions**

Wheat Committee Present: Phil Bruckner, Mike Giroux, Alan Dyer, Bill Grey, Ron Larson, Fabian Menalled, Perry Miller, Wendell Morrill, Gregg Carlson, Dave Wichman, Greg Kushnak, Bob Stougaard, Joyce Eckhoff, Ken Kephart (in absentia), Dan Lake, Mike Davis (in absentia), and Becky Mahurin (Ex-Officio).

#### **Motion by Pat Hensleigh that “MT970116” be released as a protected public release with PVP Title V. Second – Greg Kushnak**

P. Hensleigh stated that the results from last year's plant scale malt trial will not be in until this spring so the motion is to release only and not recommend until there are two years of plant scale malt trials. This barley is intended for micro malt brewers. The company that tested it, Sierra Nevada, stated that the taste test results are fine, but there will be minor modifications in the malting process.

Dale Clark asked if we could make a motion to recommend at this time. Pat would like to wait for another year's data. D. Clark asked why we don't recommend a variety when it is released. There are 16 years of data for release, what standards are there for recommendation? J. Sherwood stated that this issue has come up before and he is going to ask Jeff Jacobsen for the criteria on “Recommendations” of a variety. L. Talbert stated that in the past release has been done before recommendation because they are hoping someone will grow the seed for them. J. Eckhoff stated that people don't pay attention to the recommended list anyway.

B. Mahurin asked if there was any reason to do an exclusive release on this one. J. Sherwood stated that we can not do a Licensed Release because the line was tested with monies from AMBA and this organization does not allow a licensed release. G. Carlson stated that if AMBA doesn't give final approval, this line could still be released and has a good fit as a feed barley because of the high test weight. In addition, it has good yield under stressful conditions. A. Dyer stated that because it was a two-row barley, it would be more resistant to Fusarium head scab. P. Hensleigh repeated his motion.

Vote: 16 for, 0 against, Ken Kephart and Mike Davis voted for the motion in absentia

### **2. Wheat Crop Motions**

Wheat Committee Present: Phil Bruckner (spring wheat), Luther Talbert (winter wheat), Mike Giroux, Alan Dyer, Bill Grey, Ron Larson, Fabian Menalled, Perry Miller, Wendell Morrill, Gregg Carlson, Dave Wichman, Greg Kushnak, Bob Stougaard, Joyce Eckhoff, Ken Kephart (in absentia), Dan Lake, Frank Schoonover and Becky Mahurin (Ex-Officio).

#### **Motion by Luther Talbert that MT0245 is to be released as a protected public release with PVP title V. Second – Phil Bruckner**

L. Talbert stated that this wheat is a cross of Scholar and Reeder and selected for the “stay green” trait, high yield and quality. It yielded well across the state. Hank and Outlook are better under irrigation, but MT0245 is better in dryland. This was the top variety in Bozeman and Sidney, has semi-solid stems similar to Scholar, with moderate resistance to wheat stem sawfly, but not as tolerant to the sawfly as Choteau. D. Wichman stated that the test weight was better than McNeal spring wheat. B. Stougaard asked if it was recommended for all districts and Luther Talbert said he was going to defer until next year. J. Sherwood noted that ‘recommendations’ are district specific and ‘release’ allows the Montana foundation seed program to initiate seed expansion. B. Grey asked what the status of breeder seed and L. Talbert stated they had 14 bushels. L. Talbert repeated his motion.

Vote: 16 for, 0 against

#### **Motion by Luther Talbert that Freyr be recommended for all crop reporting districts, 1-6.**

##### **Second – Dave Wichman**

J. Smith, AgriPro spring wheat breeder, stated that Freyr has intermediate height and consistent yield patterns. The test weight is very good and the maturity is similar to Reeder. It has Asian Sumai3 background for tolerance to Fusarium head scab. There are not many choices with a good level of tolerance to Scab but there has been improvement in agronomic traits.. There is moderate resistance to stripe rust and stem rust. Bread

making characteristics are, good, with good flour yield and mixing strength. B. Schaff asked how it performed in irrigated areas. J. Smith stated that it does well under center pivots. D. Wichman stated that there is a concern about protein content. J. Smith stated that the protein content is higher than Norpro and Knudson in North Dakota but he is not sure why the values were low in the cereal quality tests from the Montana trials. J. Sherwood asked if there was any scab data and J. Smith said there are many years of scab data from North Dakota. He said South Dakota, North Dakota and Minnesota have rated Freyr moderately resistant to scab. Luther repeated the motion.

Vote: 15 for, 1 against

**Motion by Phil Bruckner to add Genou to the list of Winter Wheat Varieties Recommended for Montana in sawfly areas only of Districts 3, 4 and 5.**

**Second: Greg Kushnak**

Vote: 16 for, 0 against

**Motion by Phil Bruckner to add Jerry to the list of Winter Wheat Varieties Recommended for Montana in District 6.**

**Second: Joyce Eckhoff**

P. Bruckner stated that Jerry has stem rust resistance and winter hardiness and yields well.

Vote: 16 for, 0 against

**Motion by Phil Bruckner to remove Paul from the list of Winter Wheat Varieties recommended for Montana because of: 1) low test weight, 2) extreme stripe rust susceptibility, and 3) limited production and interest in Montana.**

**Second: Mike Giroux**

Vote: 16 for, 0 against

**Motion to remove Bighorn from the list of Winter Wheat Varieties Recommended for Montana because it has been removed from Westbred's current product line.**

**Second: Luther Talbert**

D. Clark stated that no seed is available. CDC Falcon has taken the place of Bighorn.

Vote: 16 for, 0 against

**Motion by Phil Bruckner to remove Tiber and Vanguard from the list of Winter Wheat Varieties recommended for Montana in District 3 because of poor performance.**

**Second: Luther Talbert**

Vote: 15 for 0 against, Ken Kephart abstained

**Motion by Phil Bruckner to remove CDC Falcon, Neeley and Pryor from the list of winter wheat varieties recommended for Montana in District 1 because of stripe rust susceptibility and performance.**

**Second: Luther Talbert**

B. Stougaard noted that Neeley was not grown in District 1.

Vote: 16 for, 0 against

**Motion by Phil Bruckner that Ledger be recommended as a hard red winter wheat for Districts 2, 4 and 5.**

**Second: Greg Kushnak**

D. Clark stated that there are two sister lines – the one being Ledger and the other being released in Washington named Eddy. Ledger is a semi dwarf with a good test weight (although Yellowstone has a slightly

better test weight). It also has some stripe rust tolerance. The flour yields are very acceptable. B. Grey asked about sawfly resistance and D. Clark said it had average tolerance. B. Grey also asked about it being a hollow stem variety. Jim Berg reported data on the solid stem ratings for Rampart, Genou and Ledger. Phil Bruckner stated that Ledger is not a solid stem variety. Ledger is not being recommended as a sawfly tolerant variety. P. Bruckner repeated the motion.

Vote: 16 for, 0 against

**Motion by Phil Bruckner that Bynum (MTCL0318) be recommended as a hard red winter wheat for the sawfly areas of District 4 and 5.**

**Second: Greg Kushnak**

D. Clark said the this variety was a Licensed Release, exclusively to WestBred, LLC last summer. Seed has been planted in fall 2005 in Districts 4 and 5. Phil Bruckner stated that it performs like Rampart in regards to Sawfly tolerance, agronomic and quality traits. D. Clark stated the two wheats are the first of two high quality wheats with a herbicide trait in Montana. Bakers evaluated them as good quality hard red winter wheats. P. Bruckner stated that it made a good weed control tool. A discussion ensued on the responsibility for variety protection by the Licensee, the issue of grower retained seed, and the role played by the manufacturer of the herbicide, BASF.

Vote: 16 for, 0 against

**Motion by Phil Bruckner that Norris (MTCL0316) be recommended as a hard red winter wheat for Districts 2, 3 and 4.**

**Second: Bob Stougaard**

D. Clark stated it could be used as a tool to control weeds and it doesn't yield as well as some other varieties. B. Grey asked about the lower protein content reported in Table 5 and D. Clark noted that this was a consistent finding for this variety. Also, B. Grey asked if Norris will replace MTCL1159 and D. Clark responded that this was correct.

Vote: 16 for, 0 against

**Motion by Phil Bruckner that Jagalene be recommended for all crop reporting districts.**

**Second: Bill Grey**

J. Smith, Agripro, said it has incredible disease tolerance, overall milling characteristics and overall bread making quality. It is the most broadly adapted winter wheat variety – grown from Texas all the way to Canada. There are three years data in Montana and it performed well here except for there were reduced yields in District 6. It has six days earlier maturity than Neeley. It came in number one for test weight. J. Smith also stated that it is important to remember that it is borderline for winter hardiness in the north. J. Eckhoff asked if District 6 could be removed from the motion based on reduced winter hardiness and J. Smith said would be fine.

Phil restated the motion that Jagalene be recommended for cropping district 1,2,3,4 and 5.

Second: Greg Kushnak

Vote: 16 for, 0 against.

### **3. Specialty Crop Motions**

Specialty Crop Committee Present: Phil Bruckner (spring wheat), Mike Giroux, Alan Dyer, Bill Grey, Ron Larson, Fabian Menalled, Perry Miller, Wendell Morrill, Gregg Carlson, Dave Wichman, Greg Kushnak, Duane Johnson, Joyce Eckhoff (for Jerry Bergman), Ken Kephart (in absentia), Dan Lake, Mal Westcott (for Nancy Callan) and Becky Mahurin (Ex-Officio).

**Motion for Release of Windham Winter Feed Pea**

**Second: Ron Larson**

D. Wichman said that this variety is a good seed producer. They are trying to breed true winter types but there has not been a good winter kill year so it is hard to say how winter tolerant this variety is. In the fall of 2003, it

was tilled and rolled with very little cover at all and the majority came right thru and yielded very well. There is a need for peas by the feedlot operators.

J. Sherwood asked if this has been released in Washington. D. Wichman said that they are in the process and if they don't release it, we will do it on our own. B. Grey asked who would pursue the provisions for PVP license. Wichman responded that the ARS would do that. J. Sherwood stated that this is a public release from MSU. The responsibility for obtaining a PVP license rests with Washington or USDA-ARS. We don't have mechanism to pay for a license nor collect a research fee on a pea variety, only wheat or barley. Safflower Montola was done as a licensed or exclusive release".

D. Wichman stated there is breeder seed available and foundation seed would be available in fall 2006 or spring 2007. D. Wichman noted that this is a semi-leafless with good height that facilitates seed harvest. It is not to be marketed as a forage pea. It has better seed yields than Specter. D. Wichman repeated the motion.  
Vote: 16 for, 0 against

#### **Motion for Release of Whitney field bean as a public release.**

##### **Second: Phil Bruckner**

D. Johnson noted this variety is an heirloom variety in the cranberry-type family, probably originated from the Caribbean. It could be grown in most of the state. It is meant for home garden plots. J. Eckhoff asked if the purpose of the committee was for heirloom materials such as this. D. Johnson stated that it could be placed in the germplasm bank at Fort Collins. B. Grey asked if it could be released as a germplasm rather than as a variety. K. Kephart asked if it could already exist at Ft. Collins under a previous submission at the USDA seed storage facility in Fort Collins. Also, could this be released as a 'landrace' germplasm? The germplasm description is acceptable for a registration in Crop Science. D. Johnson repeated his motion.

Vote: 12 for, 4 against

#### **4. Horticulture and Native Plants Motions**

Horticulture and Native Plants Committee Present: Luther Talbert, Mike Giroux, Alan Dyer, Bill Grey, Ron Larson, Tracy Dougher, Perry Miller, Wendell Morrill, Gregg Carlson, Dave Wichman, Greg Kushnak, Duane Johnson, Joyce Eckhoff, Ken Kephart (in absentia), Dan Lake, Mark Majerus and Becky Mahurin (Ex-Officio).

#### **Motion by Mark Majerus for the release of Copperhead Selected Class Germplasm Slender Wheatgrass**

##### **Second: Ron Larson**

M. Majerus stated that this variety was evaluated for four years and it out performed the other varieties. Livestock take in the whole plant and sometimes there are heavy metal concentrations, but this plant had the lowest heavy metal accumulations. J. Sherwood asked if this was a joint release and M. Majerus stated that it is a joint release with Wyoming. W. Grey asked if Pryor would be discontinued and M. Majerus stated that it would not because it has a high salt tolerance and is good in Eastern Montana.

Vote: 16 for, 0 against

#### **Forage update by D. Cash on Willow Creek (WWF26) and WWF25**

D. Cash reported that Willow Creek was recommended for public release by the Variety Release committee and Dean/Director in spring 2005. Ten acres of foundation production are being grown at CARC for distribution in fall 2006.

D. Cash read a letter from Steve McDonnell, President of MonTech, LLC that the Dean/Director consider and recommend WWF25 for a "license release". Breeder seed has been planted on 1 Acre at CARC.

**Amendment to the minutes:** The following is information contributed by Mike Davis, the President of AMBA, concerning the release of malting barleys in general and MT970116 in particular.

As stated at the meeting, it is important to AMBA that lines it has helped develop are publicly released (with PVP). Since our members collectively funded its development in partnership with MSU and the Montana Wheat & Barley Committee, it would not be appropriate for any one AMBA member or another entity to have exclusive rights. We want to see such varieties made widely available to all, which will be of most benefit to

growers and end users, and can only be accomplished with protected public release with PVP.

This line, which has been named "Craft" (I hope that's official) is generating a lot of interest with brewers who are interested in producing all malt beers. The first year of testing with 2004 crop was conducted with barley malted by Briess Malt & Ingredients Company, with brewing by Sierra Nevada Brewing Company. They both report satisfactory results. Briess has malt left over and will be working with other brewers to allow them to also conduct brewing trials. Cargill Malt contracted 2005 production, which produced suitable barley for them to malt and continued testing by Sierra Nevada and other brewers.

### January 24, 2006 - Wheat Variety Release Committee

<b><i>Voting Members, 16</i></b>	<b><i>Affiliation</i></b>	<b><i>Appointing Administrator</i></b>
<i>Chair, John Sherwood</i>	<i>PSPP Head</i>	<i>Director MAES</i>
1. Phil Bruckner-spring Luther Talbert-winter	Breeder	PSPP Head
2. Mike Giroux	Quality - Cereal or Forage	PSPP Head
3. Alan Dyer	Plant Pathologist	PSPP Head
4. Bill Grey	Manager	MT Found. Seed Program
5. Ron Larson	Manager	MT Seed Growers Association
6. Fabian Menalled	Weed Scientist	LRES Head
7. Perry Miller	Cropping systems	LRES Head
8. Wendell Morrill	Entomologist	PSPP Head
9. Gregg Carlson		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Greg Kushnak		WTARC Superintendent
12. Bob Stougaard		NWARC Superintendent
13. Joyce Eckhoff		EARC Superintendent
14. Ken Kephart		SARC Superintendent
15. Dan Lake (replaces Dave Broberg)	Chair	MAES Advisory Board
16. Frank Schoonover (replaces Brian Kaae)		Montana Wheat and Barley Comm
Ex-officio	Becky Mahurin	V.P. for Research, Creativity and Technology Transfer

### Barley Variety Release Committee

<b><i>Voting Members, 16</i></b>	<b><i>Affiliation</i></b>	<b><i>Appointing Administrator</i></b>
<i>Chair, John Sherwood</i>	<i>PSPP Head</i>	<i>Director MAES</i>
1. Phil Bruckner	Breeder	PSPP Head
2. Mike Giroux	Quality - Cereal or Forage	PSPP Head
3. Alan Dyer	Plant Pathologist	PSPP Head
4. Bill Grey	Manager	MT Found. Seed Program
5. Ron Larson	Manager	MT Seed Growers Association
6. Fabian Menalled	Weed Scientist	LRES Head
7. Perry Miller	Cropping systems	LRES Head
8. Wendell Morrill	Entomologist	PSPP Head
9. Gregg Carlson		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Greg Kushnak		WTARC Superintendent
12. Bob Stougaard		NWARC Superintendent
13. Joyce Eckhoff		EARC Superintendent
14. Ken Kephart		SARC Superintendent
15. Dan Lake (replaces Dave Broberg)	Chair	MAES Advisory Board
16. Frank Schoonover (replaces Brian Kaae)	Barley Feed	Montana Wheat and Barley Comm
16. Mike Davis	Barley Malt	American Malting Barley Asso.
Ex-officio	Becky Mahurin	V.P. for Research, Creativity and Technology Transfer

<b>Forage Crop Variety Release Committee</b>		
<b><i>Voting Members, 16</i></b>	<b><i>Affiliation</i></b>	<b><i>Appointing Administrator</i></b>
<i>Chair, John Sherwood</i>	<i>PSPP Head</i>	<i>Director MAES</i>
1. Luther Talbert	Breeder	PSPP Head
2. Dennis Cash	Quality - Cereal or Forage	PSPP Head
3. Alan Dyer	Plant Pathologist	PSPP Head
4. Bill Grey	Manager	MT Found. Seed Program
5. Ron Larson	Manager	MT Seed Growers Association
6. Fabian Menalled	Weed Scientist	LRES Head
7. Perry Miller	Cropping systems	LRES Head
8. Wendell Morrill	Entomologist	PSPP Head
9. Gregg Carlson		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Greg Kushnak		WTARC Superintendent
12. Duane Johnson		NWARC Superintendent
13. Joyce Eckhoff		EARC Superintendent
14. Ken Kephart		SARC Superintendent
15. Dan Lake (replaces Dave Broberg)	Chair	MAES Advisory Board
16. Mark Majerus		Bridger Plant Materials Ctr. Manager
Ex-officio	Becky Mahurin	V.P. for Research, Creativity and Technology Transfer

<b>Specialty Crop Variety Release Committee</b>		
<b><i>Voting Members, 16</i></b>	<b><i>Affiliation</i></b>	<b><i>Appointing Administrator</i></b>
<i>Chair, John Sherwood</i>	<i>PSPP Head</i>	<i>Director MAES</i>
1. Phil Bruckner	Breeder	PSPP Head
2. Mike Giroux	Quality - Cereal or Forage	PSPP Head
3. Alan Dyer	Plant Pathologist	PSPP Head
4. Bill Grey	Manager	MT Found. Seed Program
5. Ron Larson	Manager	MT Seed Growers Association
6. Fabian Menalled	Weed Scientist	LRES Head
7. Perry Miller	Cropping systems	LRES Head
8. Wendell Morrill	Entomologist	PSPP Head
9. Gregg Carlson		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Greg Kushnak		WTARC Superintendent
12. Duane Johnson		NWARC Superintendent
13. Jerry Bergman		EARC Superintendent
14. Ken Kephart		SARC Superintendent
15. Dan Lake (replaces Dave Broberg)	Chair	MAES Advisory Board
16. Mal Westcott	Horticulturist	WARC Superintendent
Ex-officio	Becky Mahurin	V.P. for Research, Creativity and Technology Transfer



<b>Horticulture and Native Plants Variety Release Committee</b>		
<b><i>Voting Members, 16</i></b>	<b><i>Affiliation</i></b>	<b><i>Appointing Administrator</i></b>
<i>Chair, John Sherwood</i>	<i>PSPP Head</i>	<i>Director MAES</i>
1. Luther Talbert	Breeder	PSPP Head
2. Tracy Dougher	Horticulturist	PSPP Head
3. Alan Dyer	Plant Pathologist	PSPP Head
4. Bill Grey	Manager	MT Found. Seed Program
5. Ron Larson	Manager	MT Seed Growers Association
6. Fabian Menalled	Weed Scientist	LRES Head
7. Perry Miller	Cropping systems	LRES Head
8. Wendell Morrill	Entomologist	PSPP Head
9. Gregg Carlson		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Greg Kushnak		WTARC Superintendent
12. Duane Johnson		NWARC Superintendent
13. Jerry Bergman		EARC Superintendent
14. Ken Kephart		SARC Superintendent
15. Dan Lake (replaces Dave Broberg)	Chair	MAES Advisory Board
16. Mark Majerus		Bridger Plant Materials Ctr. Manager
Ex-officio	Becky Mahurin	V.P. for Research, Creativity and Technology Transfer