



Crop Science
Entomology
Horticulture
Plant Biology
Plant Genetics
Plant Pathology

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DATE: January 23, 2008

TO: Variety Release and Recommendation Committee Members

FROM: John Sherwood, Chairman

Re: 2008 Minutes and Committees

Chairman: John Sherwood, Department Head PSPP
Secretary: Irene Decker, Administrative Assistant, PSPP

Present: John Sherwood, Ken Kephart, Jim Berg, Greg Kushnak, Luther Talbert, Bob Stougaard
Becky Mahurin, David Weaver, Perry Miller, Melvin Goffena, Dale Clark, David Wichman, Gregg Carlson, Craig Cook, Qasim Ihan, Joe A. Smith, Susan Lanning, Nancy Blake, Christina King, Heather Rimel, Ron Larson, Norm Weeden, Bear Whitmer, Phil Bruckner, Bill Grey, Joe Scianna, Beth Graham, John McDonnell, Joyce Eckhoff, Peggy Lamb, Mary Burrows, Fabian Menalled, Qingwu Xue, Tom Blake, Roger Hybner, Stan Bates, Charles Flynn, Jerry Bergman, Karnes Neill, Tracy Dougher, and Irene Decker

Agenda:

1. Approval of 2007 Minutes Variety Release and Recommendation Committee(s)
2. Discuss and vote on the motions put forth by the following committees in the order given: Wheat, Forage, Specialty, and Horticulture and Native Plants

Wheat:

Luther Talbert (Spring and Durum Wheat) – motions to:
Remove Knudson, Fortuna, Scholar, Ernest, Westbred Express, Westbred 936, from the spring wheat variety recommendation list

Remove Ben, Maier and Monroe from the durum wheat variety recommendation list.

Joe Smith (AgriPro Wheat)

Kuntz – hard red spring wheat
Kelby – hard red spring wheat

Craig Cook (WestBred LLC)

ONeal – hard red spring wheat
Jedd – hard red spring wheat
Volt – hard red spring wheat

Phil Bruckner (Winter Wheat)-
Craig Cook (WestBred, LLC)
Carter – hard red winter wheat

Barley

Tom Blake
Hockett – barley

Specialty:

Norm Weeden

MSUPBL27 – dry pea

Horticulture and Native Plants:

Joe Scianna

9087732- Ekalaka Germplasm bur oak

Wheat Variety Release Committee		
Voting Members, 16	Affiliation	Appointing Administrator
<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. Mary Burrows	Plant Pathologist	PSPP Head
4. Bill Grey	Manager	MT Foundation 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. David Weaver	Entomologist	LRES 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, absent	Chair	MAES Advisory Board
16. Melvin Goffena for Frank Schoonover		Montana Wheat and Barley Comm.
Ex-officio Becky Mahurin	Dir. Technology Transfer	V.P. for Research, Creativity and Technology Transfer

Motion by L. Talbert to remove AgriPro Knudson, Fortuna, Scholar, Ernest, Westbred Express, and WestBred 936 from the spring wheat recommendation list, effective February 2008.
Second by G. Kushnak.

Mr. J. Smith of AgriPro has asked to remove this variety from the recommendation list as there are improved varieties. Fortuna was released in 1966 and has been a longtime variety primarily grown for resistance to the wheat stem sawfly and although there is almost 5% of the spring wheat acreage seeded to Fortuna, there are better varieties available to the producers. Choteau has a higher solid stem rating and better resistance to the sawfly than Fortuna with higher yields across locations. Scholar was released in 1998 and is recommended for dryland production in districts 4, 5 and 6. Currently, Scholar is being grown on about 1% of the acreage and there is no certified or registered seed being grown in Montana. Outlook, Choteau and Vida yield better than Scholar in those districts and they would be better choices. Ernest is also an older variety released in 1995 by NDSU. Again, Choteau would be a better option for producers in sawfly regions in districts 2, 4 and 6 where it is currently recommended. The effective date is being

delayed because there were about 450 acres of registered or certified seed grown in 2007 and this will give those producers notice. WB Express and WB936 were varieties released by WestBred, LLC. in 1991 and 1992, respectively and are currently being grown on less than 1 % of acreage. They are recommended for irrigated production in districts 1,2,3,4, and 6. These varieties have not been tested in our nurseries since 1997 so data available is limited. There is some acreage of certified and/or registered seed being produced by Townsend Seed and WestBred, LLC.

D. Clark - WB936 is still being sold and it is the number one wheat in Idaho.

L. Talbert – WB936 can still be on the list but it is no longer being tested by MSU so we have no current information.

D. Weaver – In regards to sawfly, do we have any other solid varieties if you remove these?

L. Talbert – Choteau and Fortuna are solid.

D. Weaver – Because Fortuna is good in drought conditions, maybe it is better to leave it on the list.

G. Carlson. – *Fortuna* is the lowest yielding wheat on the list. Improperly nourished Fortuna does better than Choteau. There is still a substantial amount of Fortuna grown commercially. I am not sure we should remove it yet. If it is removed, it should stay in testing program.

D. Wichman – It won't affect the acreage planted if it is removed.

R. Larson. – Does Foundation Seed have any Fortuna seed?

B. Grey. – Some Foundation Seed is available under contract since Fortuna fills in a small niche in the organic wheat market.

L. Talbert – I am fine with all of these varieties being removed or left on the list. I think it is good to bring them and discuss them as they have been on the list for quite some time.

D. Wichman – *Fortuna* is good for dryland growers. We won't lose any growers if we take it off the list.

L. Talbert repeated the motion.

Vote: 15 for and 0 against

Motion by L. Talbert to remove Ben, Maier, and Monroe from the durum wheat variety recommendation list, effective February 2008.

Second by R. Larson

The durum acreage seeded to these varieties was 1% or less and there was no certified or registered seed produced in 2007. The other recommended durums, AC Avonlea, Alzada and Mountrail show better yields and have acceptable durum quality traits.

No discussion.

Vote: 15 for and 0 against

Motion by L. Talbert that Kelby hard red spring wheat be considered for variety recommendation in the state of Montana. He moved the Kelby be recommended for crop reporting district 1, 4 and 5 under dryland and district 2 under irrigation.

Second by P. Bruckner

J. Smith – Kelby was tested for two years in Montana. It matures early, has a high test weight, short height, and medium protection to fusarium head blight. The protein was higher than any of the checks in the test.

G. Kushnak. – I would like to see more early heading varieties so Kelby is a good recommendation.

J. Sherwood – Mike Giroux could not be here today and sent along the comment that Kelby has very poor loaf quality and a short mix time and therefore he would not recommend release.

J. Smith – The Wheat Quality Council has approved Kelby in their baking trials and it is equal to the standard used in these tests, Glenn spring wheat.

Vote: 14 for, 1 against

Motion by L. Talbert that Kuntz hard red spring wheat be considered for variety recommendation in the State of Montana. He also moved the Kuntz be recommended for irrigated areas in crop reporting districts 2 and 3.

Second by B. Grey.

J. Smith – Kuntz is a medium maturing variety, has high yield potential, good straw strength and really good agronomics. It is geared for high production. There is not much data for Montana growers. It has intermediate tolerance to scab – not quite as good as Freyr but better than Kelby. It has lower protein; it is important to make growers aware of this. Some growers are trying nitrogen and application timing to increase protein. From milling to bake, with the exception of protein, it was found very acceptable to growers.

J. Sherwood – M. Giroux mentioned there was decreased loaf volume in the MSU baking trial.

J. Smith- Was not aware of the latest data from MSU and noted that the Wheat Quality Council had approved Kuntz.

L. Talbert repeated the motion.

Vote: 14 for, 1 against

Motion by L. Talbert that Volt hard red spring wheat be considered for Variety Recommendation in the state of Montana. He also moved the Volt be recommended as a hard red spring wheat for all irrigated Districts in Montana.

Second by G. Kushnak

Volt is a hard red spring wheat developed by Dr. Peter Franck with the plant breeding company, PZO Pflanzenzucht Oberlimpurg, in Germany. Application for PVP will be submitted. Volt is being released as a high yielding, disease resistant variety for irrigated growing conditions. For the 3 year period 2005 - 2007, (29 locations), the average per acre yield of Volt in the MSU Intrastate Trials is 58.1 bushels, compared to Hank at 56.1 bushels and Choteau at 53.9 bushels. The average test weight has been 60.6 lbs, which is 3.5 pounds heavier than Hank and 1.3 lbs heavier than Choteau. Protein levels have averaged 13.7%, which is .5 -.6 percentage points lower than Hank or Choteau. The average plant height of Volt is 31 inches, which is similar to Hank and Choteau. The average heading date of Volt is four days later than Hank and two days later than Choteau.

D. Clark. – This variety was picked up from a program in Germany. It has good yield, good scab tolerance in irrigated areas. Volt was resistant to Fusarium head blight in the MSU-Scab nursery on Carl Schutter's farm. Because of lateness of variety, it is not recommended for dryland areas.

J. Sherwood – Is the low protein a concern?

D. Clark – It is a concern, but not as much as you might think. High yielding varieties in a standard trial with a fixed fertilizer quantity often have lower protein but when managed in the grower fields, the fertility can be increased to maximize the protein.

P. Bruckner – Comment on the wheat quality

D. Clark – Wheat Quality Council has approved Volt, and most trials with proper fertility management are 14 or 14.5 % protein.

B. Grey – Volt in one location had a high Black Chaff, Xanthomonas, rating. Have you any information on its susceptibility?

D. Clark - We are only aware of Granite as susceptible to Black Chaff. Volt in our observation nurseries has not been impacted by Xanthomonas.

Vote: 15 for, 0 against

Motion by L. Talbert that Jedd hard red spring wheat be considered for variety recommendation in the state of Montana and that it be recommended for all irrigated and non-sawfly infested dryland areas of districts 1 through 6.

Second by P. Bruckner

Jedd (exp.# BZ9M03-1044) is a semi-dwarf, hard red spring wheat that contains two patented genes (L1B S653N and L1D S653N) that confer tolerance to the BASF grass herbicide "Beyond" (imazimox). Jedd was developed by WestBred, LLC from the cross, 4 (4*Hank/ SWP 965-001)/Teal 11A. SWP 965-001 is a line that was developed by the Saskatchewan Wheat Pool by backcrossing Grandin to the SF-4 gene (L1D S53N) which confers tolerance to imazimox. Teal 11A is a mutated line out of the variety Teal that contains the L1B S653N gene for tolerance to imazimox. Application for PVP will be submitted.*

D. Clark – This is good wheat for those with a grassy weed problem. It should be planted early before grassy weed infestation starts. Once the plant is established then it can be sprayed for the cheat grass weeds.

B. Schaff – Is there data for herbicides?

D. Clark – No.

K. Kephart – I am concerned with recommending a Clearfield variety for irrigated areas where there is not a plant-back restriction. Growers may grow wheat after wheat leading to herbicide resistant weeds. There is also a concern about rotation issues. What is the plant-back restriction on corn and Clearfield wheat?

F. Menalled – Not sure.

K. Kephart – I think it is about 18-24 months.

J. Sherwood – Is this information available where people are buying these varieties?

G. Kushnak – It is on the label.

D. Clark – They all have to sign the agreement and should be aware of the restrictions for chemical use.

Vote: 15 for, 0 against.

Motion by L. Talbert that ONeal hard red spring wheat be considered for variety recommendation in the State of Montana for dryland in districts 3,4,5, and 6.
Second by G. Kushnak

ONeal is a hard red spring wheat developed by WestBred, LLC from the cross, McNeal/WestBred 906R. Application for PVP will be submitted.

ONeal is being released as a high quality hard red spring wheat that will compete for the McNeal acres, and be more adapted to areas infested by the wheat stem sawfly. For the 3 year period 2005 - 2007, (29 locations), the average per acre yield of ONeal in the MSU Intrastate Trials is 55.2 bushels, compared to McNeal at 50.4 bushels and Choteau at 53.9 bushels. The average test weight has been 58.8 lbs, which is .9 pounds heavier than McNeal and .5 lbs lighter than Choteau. Protein levels have averaged 14.2%, which is .1 percentage points lower than McNeal or Choteau. The average plant height of ONeal is 33 inches, which is similar to McNeal and 2 inches taller than Choteau. The average heading date of ONeal is similar to McNeal and 1 day later than Choteau. See Table 1 for a summary of combined location/years averages, and Tables 2 through 11 for individual location/years averages. Milling and baking quality data from the 2005-2006 crops indicate that ONeal has quality comparable to McNeal (Tables 14 and 15). Disease/sawfly ratings for ONeal show it to be susceptible to stripe rust (Table 13.). ONeal is a hollow stemmed variety, but has shown tolerance to cutting by the wheat stem sawfly (Table 12.).

D. Clark – This variety is similar to McNeal – same chaff quality, but better yields. In the nursery in Choteau area, it stood better than the solid stem varieties. It had quite a bit of tolerance to sawfly so it could be planted in areas that McNeal could not.

J. Sherwood – Why are you not stating that it is sawfly tolerant?

D. Clark – We need to gather more data. It needs to be put out into growers' fields – not just in the experimental nurseries.

D. Wichman– In the two years of data from Havre, the sawfly cutting values for McNeal are lower than Jedd, but not much different, and you said that Jedd was susceptible. It would appear then that ONeal is also susceptible to the sawfly. We need more data.

J. Eckhoff – Was this true for all nurseries or just those two years of data from Havre?

J. Eckhoff – I think it is pretty exciting that there is a hollow stem that has some resistance to sawfly if the nursery information is indicative of how the variety will perform under commercial production.

D. Wichman – I think we should wait a year and then see what we are really recommending.

J. Sherwood – If this is going to be voted for recommendation, it has to be on other than just the sawfly characteristic. Is there more discussion on waiting for a year to place ONeal on the recommendation list?

G. Kushnak – It will take forever to gather more data as it is difficult to gather reliable sawfly cutting data in any one year. I think we should recommend it without the statement about sawfly resistance.

D. Wichman – Can it be brought back next year?

J. Sherwood – There is not a problem with that.

D. Wichman– Then we should take out the statement about sawfly resistance.

J. Sherwood – We need motion that would take out the last paragraph in the information on the variety that refers to sawfly resistance.

J. Eckhoff – I also think we should amend it by dropping district 6. There are already two recommended varieties and ONeal does not yield as well as Jedd (even if this is a Clearfield variety) so why recommend this one for district 6?

D. Clark – There are other varieties that are better for district 6.

Motion by Luther Talbert that ONeal hard red spring wheat be considered for variety recommendation in the State of Montana for dryland in districts 3,4, and 5 and that the statements regarding sawfly resistance be removed from the Montana State University Plant Sciences and Plant Pathology Website.

Second by J. Eckhoff

Vote: 15 for, 0 against

Motion by P. Bruckner that Carter be recommended for variety recommendation in the state of Montana for districts 2, 3, 4, 5, and 6.

Second by G. Kushnak

Carter is a hard red winter wheat selected from the progeny of the cross Jagger x Rampart. PVP will be applied for. Over a 3 year period, 24 station years of data, Carter has performed as well as or slightly better than the check varieties except CDC Falcon (Table 1). The average test weight is greater or equal to check varieties. (Table 1). Percent protein is equal to Genou, slightly less than Rampart, but greater than CDC Falcon (Table 1). Carter is a semidwarf variety with its plant height being less than all of the check varieties (Table 2). The average heading date of Carter is similar to the check varieties CDC Falcon and Genou and 1 day earlier than Rampart (Table 2). Carter is a semi-solid variety with tolerance to the wheat stem sawfly (Tables 3, 4 and 5) Individual location data are on Tables 7 through 14. Disease data from Kalispell and Bozeman show Carter to have moderate resistance to stripe rust (Table 5). Winter survival and winterkill data show Carter to have better survival than Genou and Rampart, but not as winter hardy as CDC Falcon (Table 6). Milling and Baking data from MSU 2005-2006 show Carter to be an acceptable quality wheat (Table 15 and 16).

C. Cook – The yield is comparable to Genou. (??ask Craig Cook/ It is not recommended under irrigation especially where straw is an issue). This is harvested a little earlier than other varieties.

D. Clark – Many farmers are having problems getting through all the straw.

P. Bruckner – Is this variety as sawfly tolerant?

D. Clark – Yes, we could release for both areas – sawfly and non-sawfly.

D. Weaver– To just say tolerant seems to be vague. We should say intermediate resistance to sawfly.

G. Carlson – Sawfly resistance is an issue and that is why Scholar and others did not work out.

J. Sherwood – They can refer to the table. It is clear there what the data shows.

P. Bruckner - In District 6, Carter has better resistance to sawfly than the other varieties.

G. Carlson – What are we doing with sawfly resistance in that part of the state?

J. Berg – Pryor yield 8-10 bushels better; others are better, but not recommended for District 6.

J. Eckhoff – I would hate to recommend something that could be susceptible to stem rust as that has been a significant issue in the past.

P. Bruckner – The stem rust disease lab in St. Paul will not send us a race of stem rust that has not been collected in Montana at some time in the past. If anyone sees some rust in Montana they need to send them to me. Until we receive new populations of stem rust, we will have to keep using the old ones.

K. Kephart – I have been using stem rust susceptible lines and haven't seen any problems with this disease.

Vote: 15 for, 0 against.

M. Goffena – In regards to soft white wheat, if production is available, the trade teams have mentioned that they would like to see all classes of wheat when visiting Montana. Montana is

known with the grain and mill buyers for its high quality grain. The mainstay is red hard winter and spring but we may see more niche markets, in the soft wheats.

P. Bruckner – Luther is working on a genetic marker that would detect high bread and noodle quantity in hard white wheats.

G. Kushnak – For noodles or baking?

M. Goffena – This is something to look at as it does have a low enough PPO, and acceptable noodle for the Asian market.

D. Clark – General Mills thought it did.

Barley and Oats Variety Release Committee		
<i>Voting Members, 16</i>	<i>Voting Members, 16</i>	<i>Voting Members, 16</i>
<i>Chair, John Sherwood</i>	<i>Chair, John Sherwood</i>	<i>Chair, John Sherwood</i>
1. Tom Blake/Phil Bruckner	1. Tom Blake/Phil Bruckner	1. Tom Blake/Phil Bruckner
2. Mike Giroux	2. Mike Giroux	2. Mike Giroux
3. Mary Burrows	3. Mary Burrows	3. Mary Burrows
4. Bill Grey	4. Bill Grey	4. Bill Grey
5. Ron Larson	5. Ron Larson	5. Ron Larson
6. Fabian Menalled	6. Fabian Menalled	6. Fabian Menalled
7. Perry Miller	7. Perry Miller	7. Perry Miller
8. David Weaver	8. David Weaver	8. David Weaver
9. Gregg Carlson	9. Gregg Carlson	9. Gregg Carlson
10. Dave Wichman	10. Dave Wichman	10. Dave Wichman
11. Greg Kushnak	11. Greg Kushnak	11. Greg Kushnak
12. Bob Stougaard	12. Bob Stougaard	12. Bob Stougaard
13. Joyce Eckhoff	13. Joyce Eckhoff	13. Joyce Eckhoff
14. Ken Kephart	14. Ken Kephart	14. Ken Kephart
15. Dan Lake (absent)	15. Dan Lake	15. Dan Lake
16. Melvin Goffena for Frank Schoonover	16. Melvin Goffena for Frank Schoonover	16. Melvin Goffena for Frank Schoonover
16. Mike Davis (absent)	16. Mike Davis	16. Mike Davis

Motion by T. Blake to release MSU's barley line tested as MT910189 under the variety name of Hockett for commercial production in the spring of 2008.

Second by G. Kushnak

We propose to release the MSU barley line tested as MT910189 under the variety name 'Hockett' for commercial production in the spring of 2008. Hockett derives from the cross ND7293/Bearpaw and was selected to fit the needs of the American lager brewing industry. Hockett has passed three years' small scale malting quality evaluation, two years' pilot scale malting evaluation and one year of plant scale malting and brewing evaluation by Anheuser-Busch Inc from the 2006 crop. The 2007 crop was excellent and will enter plant scale

evaluation this spring. The American Malting Barley Association (AMBA) recommendation process requires two years' success through plant scale tests, and we look forward to Hockett's successful plant scale evaluation from the 2007 crop. Hockett's malting characteristics are similar to those of the widely grown 2-rowed malting variety, Harrington. Hockett outyields Harrington and produces grain with lower protein percent and higher test weight (Table 1). Anheuser-Busch Inc. has advanced Hockett to very large-scale experimental evaluation with the goal of potentially recommending Hockett for production and commercial use in the spring of 2009.

T. Blake - This is a good dryland variety. Under drought conditions, it retains kernel weight. It yielded four bushels/acre more than Harrington except in Sidney. Busch-Ag wants to do a 20,000 acre grow out. They are more interested in this than any other variety Montana has produced in the last twenty years.

J. Sherwood – All wheat and barley varieties are now released as protected public varieties. AMBA is requesting that this be publicly released. You would be able to PVP this variety and at the same time have it publicly available to generate research fees.

P. Miller – What happened in Sidney with the lower yield than Harrington?

T. Blake – This is not a great irrigated variety; it does not have strong straw strength.

G. Kushnak – If this is not released, will Anheuser-Busch Inc. grow this anyway?

T. Blake – It is out there and it would be very hard to retrieve it. It will be good to see how it does in a wide variety of growing areas.

K. Kephart – You want to release it as PVP, Title V?

T. Blake – Yes.

B. Grey – If you are collecting experimental data from the grow out on the 20,000 acres, then the PVP process can be delayed until this fall.

T. Blake – We should start the process this spring as it takes a year.

B. Grey – If Anheuser-Busch Inc. is getting experimental data this year, be sure they are recording date from crops grown this summer.

J. Sherwood – Is there data to collect for Anheuser-Busch Inc. 2007 malting test?

T. Blake – Yes.

J. Sherwood – We need some grown this year so we are ready for next spring.

T. Blake – Last year there was 800 acres grown.

G. Carlson – Where will the seed go that is harvested this fall?

T. Blake – Anheuser-Busch Inc. must purchase all the seed that is harvested.

B. Grey – Is there a need for seed production as foundation class in 2008? If we are to sell it this spring, it must be released from this committee.

M. Goffena – There is serious competition for barley acreage with the strong wheat prices. It behooves us to have as many barley varieties available as quickly as possible.

B. Grey – Craft was released last year. Busch-Ag is not interested in Craft.

M. Goffena – The Pacific Rim would like more barley and the supply is not there.

D. Clark – Harrington was rejected many times by the malters.

T. Blake – We have requested that Anheuser-Busch Inc. pay a \$0.30 per bushel research fee on the seed sold this spring for the 20,000 acre grow out and Busch-Ag said that was fine.

P. Bruckner – How much does Foundation Seed have?

B. Grey – About 250-300 bushels. We can sit on that for another year.

K. Kephart – Why delay on the PVP?

T. Blake – There is no need to.

B. Grey – The monies are available for PVP license through the Dean's office.

T. Blake repeated the motion.

Vote: 15 for, 0 against.

Specialty Crop Variety Release Committee		
<i>Voting Members, 16</i>	<i>Affiliation</i>	<i>Appointing Administrator</i>
<i>Chair, John Sherwood</i>	<i>PSPP Head</i>	<i>Director MAES</i>
1. Dennis Cash (absent)	Breeder	PSPP Head
2. Norm Weeden	Breeder	PSPP Head
3. Mary Burrows	Plant Pathologist	PSPP Head
4. Bill Grey	Manager	MT Foundation 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. David Weaver	Entomologist	LRES Head
9. Gregg Carlson		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Greg Kushnak		WTARC Superintendent
12. Bob Stougaard		NWARC Superintendent
13. Jerry Bergman		EARC Superintendent

14. Ken Kephart		SARC Superintendent
15. Dan Lake (absent)	Chair	MAES Advisory Board
16. Mal Westcott (absent)		WARC Superintendent
Ex-officio Becky Mahurin	Dir. Technology Transfer	V.P. for Research, Creativity and Technology Transfer

Motion by N. Weeden that the Montana State University pea breeding line 27 (MSUPBL27) high-amylose dry pea be approved for release in 2008.

Second by B. Grey

MSUPBL27 from the cross 'Majoret' x 'Bolero' made in spring, 2004. 'Bolero' produced seeds with a high amylose content and 'Majoret' was one of the better performing varieties in small trials planted at Conrad and Moccasin the previous summer. One F1 plant was grown in the field in 2004. Approximately 70 F2 plants were grown in the greenhouse at Bozeman in fall, 2004 and lines were selected that were semi-leafless and high in amylose content. F3 families from the selected F2 were grown in the greenhouse at Bozeman in spring 2005, and single plants displaying an erect growth habit, excellent vigor, good pod distribution and good yield were selected for field testing. Of the approximately 50 F4 families tested for yield and habit at the Hort Farm in Bozeman in the summer of 2005, five were selected on the basis of productivity and acceptable agronomic type and harvested as bulks. Seed of these bulks was increased in a winter grow out at Waddell, AZ and planted at the Hort Farm for yield trials in summer 2006. MSUPBL27 gave the highest yield of the lines tested, although its yield was not significantly different from two other lines (MSU89C and MSUPBL11) or the low amylose parent (Majoret). Although there was insufficient seed of MSUPBL27 to send to Moccasin in 2006, both MSU89C and MSUPBL11 were grown at Moccasin that summer, with MSU89C performing in the top category of the 11 high-amylose lines being tested. Seed from summer 2006 was saved for more extensive yield trials at Bozeman, Conrad, Moccasin and Sidney in summer 2007.

N. Weeden – This pea has high nutritional value and is very slow digesting starch which is good for diabetics. The primary gene is Mendel's wrinkled. There is a 15-20% loss in yield. The best performing pea variety before this was 89C and it showed sensitivity to drought.

P. Miller – This variety has 1% less moisture content. Is that typical of this variety?

N. Weeden – These do need to be cooked a little longer. Maybe it would be good to harvest a little sooner.

P. Miller – Is there a bloat problem?

N. Weeden – There is no moisture with a mix of barley and pea so very little bloat problem. When the pea is fed with barley, it counteracts the bloat problem as it is very slow digesting. Corn mixed with this variety is recommended.

P. Miller – The text concerning bloat should be struck as it gives the impression that pea in a feed mixture can lead to bloat and that is not the case

N. Weeden – That would be fine.

Perry Miller – Does green or yellow seed color matter?

N. Weeden – Not really.

K. Kephart – Is industry interested?

N. Weeden – The diabetic market is showing some interest. There is also substantial Chinese interest in dry wrinkled peas.

D. Wichman – Were there lines that did have disease in the evaluation nursery and can you say that this line is resistant to Fusarium wilt?

N. Weeden – Not really, just some root rot and we can take care of that. These are susceptible to powdery mildew. I have not done a fusarium wilt trial, but I am almost 100% sure this variety is not susceptible because the parents have resistance to Fusarium oxysporium f.sp. pisi race 1.

J. Sherwood – It is often beneficial to have a name for a variety in the Variety Release Committee minutes; what would you like the name to be?

N. Weeden – Either highline or highlight.

B. Grey – Have you given any consideration to license release? This may need special handling because of the nutritional aspect.

N. Weeden – No specific company has shown interest.

Vote: 12 for, 0 against. N. Weeden is not a voting member when bringing a variety forward for release.

Horticulture and Native Plants Variety Release Committee		
<i>Voting Members, 16</i>	<i>Affiliation</i>	<i>Appointing Administrator</i>
<i>Chair, John Sherwood</i>	<i>PSPP Head</i>	<i>Director MAES</i>
1. Bill Hoch (absent)	Horticulturist	PSPP Head
2. Tracy Dougher	Horticulturist	PSPP Head
3. Mary Burrows	Plant Pathologist	PSPP Head
4. Bill Grey	Manager	MT Foundation 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. David Weaver	Entomologist	LRES Head
9. Gregg Carlson		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Greg Kushnak		WTARC Superintendent
12. Bob Stougaard		NWARC Superintendent
13. Jerry Bergman		EARC Superintendent
14. Ken Kephart		SARC Superintendent

15. Dan Lake (absent)	Chair	MAES Advisory Board
16. Roger Hybner for Joe Scianna		Bridger Plant Materials Center
Ex-officio Becky Mahurin	Dir. Technology Transfer	V.P. for Research, Creativity and Technology Transfer

Motion by R. Hybner for the selected class pre-varietal release of Ekalaka Germplasm bur oak *Quercus macrocarpa Michx* for the northern Great Plains and valleys of the intermountain West. Second by J. Berg.

Justification for alternative release is based on a critical need for well-adapted plant materials for windbreaks and shelterbelts in the northern Great Plains and Intermountain West. In addition, the emergence of the emerald ash borer will create an urgent demand for medium-stature deciduous trees to replace green ash Fraxinus pennsylvanica Marsh in numerous conservation practices. A lack of tested and adapted germplasm and the potential use of non-adapted seed sources further support selected class release. Additionally, this selection originates from a bulk of several northern Great Plains seed sources that should prove well adapted to the conditions in the intended geographic area of use. Ekalaka Germplasm bur oak was selected for superior seedling survival, rate of height growth, and form, relative to other bur oak individual trees and seed sources tested. Ekalaka Germplasm bur oak can also be used in other conservation applications such as reforestation, xeriscaping, woody draw restoration, and wildlife habitat enhancement.

R. Hybner. – There are over 200,000 acorns in cooler. There is a great deal of interest in this variety. It is a good replacement for Russian Olive and green ash. It cannot be planted on a saline site.

Vote: 14 for, 0 against

Motion by K. Kephart to adjourn.
Second by R. Larson.

Vote: 15 for, 0 against.