



DATE: January 27, 2014
TO: Variety Release and Recommendation Committee Members
FROM: John Sherwood, Chair
RE: 2014 Minutes and Committees
Chair: John Sherwood, Department Head PSPP
Secretary: Irene Decker, Administrative Assistant, PSPP

Present: John Sherwood, Bill Grey, Ken Kephart, David Wichman, Heather Rimel, Craig Cook, Ryan Holt, Fabian Menalled, Phil Bruckner, Dave Gettel, Jim Berg, Mike Giroux, Larry Holzworth, Becky Mahurin, Nancy Blake, Hwa Young Heo, David Weaver, Tracy Sterling, Luther Talbert

Crop Science

Entomology

Horticulture

Plant Biology

Plant Genetics

Plant Pathology

Video Conferencing Participants: SARC – Kent McVay, NARC - Darin Boss, Peggy Lamb, Tom Allen, EARC - Joyce Eckhoff, Johannes Schneider, Ron Brown, NWARC - Robert Stougaard, Tom Siderius, WTARC - John Miller.

Phone Conferencing Participants: Shaan Tsai and Joe Scianna

Not in attendance: Mary Burrows, Norm Weeden, Gadi Reddy, Bret Nedens and Roger Hybner. Perry Miller submitted his votes to John Sherwood.

Agenda

1. Approval of the Minutes of the 2013 meeting.
2. Discuss and vote on the motions submitted to the Wheat Committee.
3. Discuss and vote on the motions submitted to the Forage Committee.

1. Approval of the Minutes of the 2013 meeting.

O
D. Weaver moved to approve 2013 minutes.
R. Larson - Seconded the motion.
Vote: 14 for, 0 against.

2. Discuss and vote on the motions submitted to the Wheat Committee.

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2014 Variety Release Committees

Wheat Variety Release Committee		
Voting Members, 16	Affiliation	Appointing Administrator
Chair, John Sherwood	PSPP Head	Director MAES
1. Phil Bruckner-spring 1. 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. Peggy Lamb		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Gadi Reddy		WTARC Superintendent
12. Bob Stougaard		NWARC Superintendent
13. Joyce Eckhoff		EARC Superintendent
14. Ken Kephart		SARC Superintendent
15. Bret Nedens	Chair	MAES Advisory Board
16. Tom Siderius		Montana Wheat and Barley Committee
Ex-officio Becky Mahurin	Dir. Technology Transfer	V.P. for Research, Creativity and Technology Transfer

Phil Bruckner – Moved to remove Soft White winter wheats, Hyalite Hard White winter wheat, Rampart hard red winter wheat and Pryor Hard red winter wheat from the Montana Winter Wheat Recommended Variety List.

D. Wichman - Seconded the motion.

P. Bruckner - The testing of soft whites was discontinued in 2011. Pryor and Hyalite have not been in production the last few years. Rampart is still grown due to its sawfly resistance but other higher yielding sawfly resistant cultivars are available.

K. McVay – Pryor is still very competitive in South Central Montana.

R. Holt – Currently Pryor is grown on very few acres. It will be phased out in the next three years.

P. Bruckner – We are no longer producing Foundation Seed of Rampart but could increase Rampart with contracted seed production.

B. Grey – It has been four years since foundation seed of Rampart was sold and there is currently no foundation seed available of Rampart.

P. Bruckner – It is a natural process for cultivars to go out of production when they get older. If they want it they can get it through Foundation Seed on a forward contract.

P. Bruckner – Repeated the motion.

Vote: 13 for, 0 against

Shaan Tsai (Meridian Seeds) – Moved to add Broadview Hard Red Winter Wheat to Districts 5 and 6 of the Montana Winter Wheat Recommended list.

Broadview was developed by Dr. Rob Graf. Meridian Seed has exclusive rights to this seed. It has PVP rights in Canada and is applying for PVP rights in the U.S. It is a hollow stem variety and has good yield in the Northern Plains. It is similar to Yellowstone. It should perform well in areas where there is a problem with rust; not sure about stripe rust as there is limited data. Table 2 does suggest susceptibility to stripe rust in Montana. Table 3 shows that it may have acceptable milling quality in Montana. It should be recommended where it shows most promise.

J. Eckhoff – What is Broadview's resistance to Septoria leaf blotch and tan spot?

S. Tsai – There are no official ratings yet for leafspot. It is at the lower to intermediate level; intermediate at best.

M. Giroux – It has a short mixing time which is not typical for Montana wheats. It is rated as average which is the same way Vida is rated. The larger issue for this variety and for some of the new spring wheat varieties is whether the trend toward less mixing strength will create export market issues. Is anyone aware if people complain about Vida's short mixing time?

S. Tsai – Data rated it using established U.S. winter wheat quality checks.

M. Giroux – Have end users expressed any concerns to you about varieties with short mixing times and lack of strength?

P. Bruckner – Based on a three year evaluation of Montana trials, it is on the low end for volume, flour yield; same as CDC Falcon. It is similar to some of the Montana varieties and has adequate quality for production.

D. Weaver – Is CDC Falcon the standard? Does that make it OK to recommend?

J. Berg – Broadview has 50% CDC Falcon in its pedigree. Regarding the new Canada Western General Purpose (CWGP) classification, the quality is way ahead of the other Canadian wheats, such as Accipiter and Peregrine.

K. Kephart – We have released some Clearfield winter wheat lines in the recent past with the same or similar levels of intrinsic grain quality, so how do we reject Broadview?

P. Bruckner – We are looking for acceptable end use quality and currently, we are happy with the end use quality of the wheats we have.

J. Berg – We have rejected Overland, but it does well in Ken Kephart’s area.

M. Giroux – This variety falls within the range of what has been released but would not be considered a strong mixing strength variety. The trend toward reducing strength may become an issue at some point since this variety and one of the spring wheats we are looking at today are considered average.

D. Weaver – This does fit the standard of CDC Falcon if that is a standard.

K. Kephart – Some millers and bakers will say the quality is OK, some won’t. Since it is within an acceptable range, it is hard to not recommend it. The yield of Broadview is similar to Yellowstone.

S. Tsai - Repeated the motion.

Vote: 13 for, 0 against.

Luther Talbert - Moved to remove Kuntz and AP604CL from the recommended variety list. These varieties were not tested in Montana in 2013, and Syngenta (Agripro) is not currently selling them in the state. Data on performance (<http://plantsciences.montana.edu/Crops/2013data/2013SpringWheatVarieties.pdf>) shows that there better choices available.

L. Talbert – This motion was prompted by Joe Smith, breeder for Syngenta. It is not grown anywhere in the state.

D. Weaver – Seconded the motion.

Vote: 13 for, 0 against

Luther Talbert – Moved to release CAP400 for District 1 with PVP Title V protection where the orange wheat blossom midge is a problem.

D. Weaver – Seconded the motion.

L. Talbert – Midge is a problem in the Flathead Valley so several people have been working on this. CAP400 carries the *Sm1* gene which is resistant to midge, has high grade protein, a stripe rust resistant gene, and was the best of several hundred tested. Yield-wise, it did not perform well across the state. It performed the best in the Kalispell area.

B. Stougaard – it was grown in special nurseries. It was the highest yielding line at the Creston station. Protein was 16.3 which was close to the highest produced in that nursery. It also came out on top for yield potential. It is a line that fits this

area well; it has good resistance to midge and stripe rust and it has a very high mixing time tolerance. Bread quality is decent.

J. Eckhoff – Is there a true resistance to midge?

L. Talbert – It kills them dead.

D. Weaver – *Sm1* causes a hypersensitive response to larval feeding with a presumed mode of action. Feeding on *Sm1* containing germplasm causes the midge larva to detach its mouthparts from the developing seed at the site first established for feeding. This is reported to be a result of the induced increase in the concentration of phenolic acids. Subsequently, the larva does not successfully establish a second feeding site and starves to death.

B. Grey – Would there be an opportunity for interested individuals in other districts to grow it for its high protein?

L. Talbert – Possibly.

D. Weaver – It does well under irrigation so we could change the motion to irrigated areas.

J. Sherwood – Is it possible that midge might spread to other areas and therefore we should recommend this variety for more districts?

P. Bruckner – We can look into that at another time.

L. Talbert – We could delete District 1 and revisit areas to recommend next year.

B. Grey – At that point, we will have another year's worth of data.

D. Weaver – The risk of using non-resistant lines is the issue of insecticides. Insecticides used to control the midge will kill wheat stem sawfly parasitoids. Having a resistant variety available will help cut down on insecticide use and thus should help with sawfly control.

D. Wichman – I support the motion. Refuge in a bag should be strongly considered because of resistance.

R. Larson – One way to do this would be for it to be Foundation Seed certified only; no registered class. This doesn't expand the variety so it doesn't become a labeling issue. Blends are not certified in Montana.

R. Larson – We would need to come up with a method of labeling.

D. Gettel – It makes sense to do this the right way – do it as a blend to start with.

D. Wichman – What you are saying is that the best way is to come up with a label for the blend, right?

J. Sherwood – It is a good thing to point out this issue and discuss it.

L. Talbert made a modified motion - To release CAP400 in areas where orange wheat blossom midge is a problem with PVP Title V protection.

D. Wichman - Seconded the motion.

Vote: 13 for, 0 against

David Weaver - Respectfully moved that an amendment be made to the above motion – that CAP400 not be release unless it is in a blended form somehow.

R. Larson – I don't see this as going state wide so hopefully it will be more manageable. We will need to come up with a plan and then have the board vote on it.

R. Larson – Is there any flexibility as to how we get this done?

D. Weaver – The intent needs to be that there would be refuge in a bag.

D. Weaver - Moved that motion by Luther Talbert be amended as follows: Move to release CAP400 for District 1 and where the orange wheat blossom midge is a problem with refuge in a bag with PVP Title V protection.

P. Bruckner - Seconded the motion.

Vote: 13 for, 0 against

Luther Talbert - Moved to release MT1172 as a Clearfield Spring Wheat for Districts 1-6 under dryland conditions.

L. Talbert – Do we want to decide on a name also?

J. Sherwood – This committee generally stays away from naming varieties.

L. Talbert – MT1172 is very similar to Vida. BASF approved it as a Clearfield wheat. Grain yield potential similar to Vida; it is high yielding and looks like Vida in the field.

D. Weaver – What about sawfly resistance?

P. Lamb – Not as good as Vida when it comes to sawfly resistance.

L. Talbert – There is not enough data. This goes to Mike's discussion. Reeder was one of the first stay-green varieties; it does not have as strong a gluten as the others. Vida was a child of Reeder. Mixing tolerance and other characteristics of MT1172 are at least as good as Vida in 2012. We don't have 2013 data yet.

J. Sherwood – It must be licensed to some entity that can market it.

K. Kephart – It has a different end use than winter wheat; that is the problem here.

L. Talbert – I don't have a strong opinion here as it won't be grown on a lot of acreage anyway.

R. Larson – It adds to the acreage of Reeder and Vida and that is significant.

M. Giroux – Since Vida is also rated as average this variety continues the trend toward reduced strength among spring wheat varieties. We have had really strong varieties and the trend now is to weaker varieties. However, it is impossible to say whether this variety would alone negatively impact the value of Montana wheat.

K. Kephart – Montana quality scores are changing over time but this involves minor acreage.

P. Bruckner – If we already have varieties like this, we need to accept this variety also.

M. Giroux – I can't find a way to rate this as poor; it is average. We don't have to reject it because of that. It is not a market concern, just not a market advantage.

R. Holt – It is very high quality and high yielding.

J. Sherwood – Are there Clearfield alternatives?

L. Talbert – Companies like Syngenta are coming up with their own.

R. Holt – It is not good to be lowering the bar year after year.

L. Talbert – I have mixed feelings about this. It is ranked a little lower for strength than Vida. Originally we were not going to release anything less than Vida. However, this line is probably around Reeder level. Lots of foreign millers and bakers really like the Reeder/Vida type.

D. Weaver – Historically, it has always been Montana that brings everyone else up to their level for blending for foreign markets.

L. Talbert repeated the motion.

R. Larson – Seconded the motion.

Vote: 6 for, 1 against, 2 abstained

Forage Crop Variety Release Committee		
Voting Members, 16	Affiliation	Appointing Administrator
<i>Chair, John Sherwood</i>	<i>PSPP Head</i>	<i>Director MAES</i>
1. Norm Weeden	Breeder	PSPP Head
2. Larry Holzworth	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. Peggy Lamb		NARC Superintendent
10. Dave Wichman		CARC Superintendent
11. Gadi Reddy		WTARC Superintendent
12. Bob Stougaard		NWARC Superintendent
13. Joyce Eckhoff		EARC Superintendent
14. Ken Kephart		SARC Superintendent
15. Bret Nedens	Chair	MAES Advisory Board
16. Roger Hybner	Research Agronomist	Bridger Plant Materials Center
Ex-officio Becky Mahurin	Dir. Technology Transfer	V.P. for Research, Creativity and Technology Transfer

David Wichman - Moved to release 110WCF57 and 111WCF57 in Districts 1-4 and milder parts of District 5. Also, propose the name of Deer Lodge for 111WCF57.

D. Weaver - Seconded the motion.

D. Wichman – Winter triticale is grown as far out as California and North Dakota. Pat Hensleigh started the selection process. Getting a pure line of awnless is difficult. When it heads determines if it will be a winter variety. Whether a producer wants winter triticale or not is dependent on their operation.

I am not sure what the winter hardiness is in Districts 5 and 6 for Willow Creek. It produced 1 ton/acre in Winifred. These are 8-10 inches taller than other varieties.

L. Holzworth – Review nitrates.

D. Wichman – It was tested a few times. Winter cereal forages have less than spring wheat forages.

L. Holzworth – Is the 317 ppm significant? Willow Creek has 220 ppm, almost 100 ppm lower.

D. Wichman – I'm not sure. The number one triticale challenge is nitrates. Appropriate fertilizer levels are needed.

J. Sherwood – Are you intending that either or both of these varieties be licensed? There are three options: Public release, PVP, or licensed

D. Wichman – We don't need to decide at this point. We don't have enough resources now for Foundation Seed. We are trying to produce more.

J. Sherwood – A different committee decides about PVP.

D. Wichman – License it, sell it, and be done with it.

B. Grey – I had no idea how popular winter annual forage was until Willow Creek came along. I am leaning toward exclusive licensing vs going public. This variety and the winter triticales will need someone to champion them and take them forward.

D. Wichman – Seed plant operations won't contract or clean a triticales as it can be a contaminant of Winter wheat seed. It is 6-10 inches taller so they think they have rye.

J. Sherwood – If we go the license route, it is not important if we release one or the other; the License Release Committee will take care of that.

L. Holzworth – Is there demand? How does it compete with Willow Creek? How much can the market bear?

B. Grey – Willow Creek is regional and crosses state lines so I would imagine a winter triticales would follow this route.

L. Holzworth – Digestibility is less than Willow Creek. Why grow it when you can grow Willow Creek.

B. Grey – There is some advantage with the ton/acre yield.

L. Holzworth – It does not make as good a hay.

D. Wichman – It has a stable yield across a range of environments.

D. Wichman moved to release 110WCF57 and 111WCF57 for licensed release in Districts 1-4 and milder parts of District 5. Also, propose the name of Deer Lodge for 111WCF57.

D. Weaver - Seconded the motion.

Vote: 11 for, 0 against.

David Wichman - Moved to adjourn.

L. Talbert - Seconded the motion.

Vote: 14 for, 0 against