WASHINGTON TURFGRASS SEED COMMISSION

ANNUAL MEETING REPORT

COMMISSIONERS

Chairman Travis Meacham Position 5 Director Appointed travis@friehefarms.com

Treasurer Keith Berglund Position 2 Elected, District 2 kberglund@pomeroy-wa.com

Chester (Chet) Jahns Jr. Position 1 Director Appointed, District 1 chet131@juno.com

JR Swinger Position 3 Elected, District 3 jrswinger@hotmail.com

Scott Davis Position 4, Director Appointed, District 4 scottlloydd@gmail.com

Jory Iverson Position 6 Handler jory@columbiariverseed.com

Victor Shaul Position 7 WSDA vshaul@agr.wa.gov

STAFF

Shane Johnson Administrator shanej@agmgt.com

Sheri Nolan Assistant Administrator snolan@agmgt.com



WASHINGTON TURFGRASS SEED COMMISSION

100 N. Fruitland Street, Suite B Kennewick, WA 99336 Tel: (509) 585-5460 Fax: (509) 585-2671 agmgt@agmgt.com waturfgrass.org



Letter from the Chairman

It is an exciting time at the Washington State Turfgrass Seed Commission. The commission was founded to help growers in our state come together to share knowledge, resources, and expertise in growing and marketing our crops. For the past 18 years the commission has been quietly working in the background to help fund research that helps our members grow a better product. The current commission recognizes that there is an opportunity to bring greater benefit to our members. We have made an effort to focus our time and resources to three specific areas: research, marketing and education. Research will still be our main focus. We are going to start marketing our state turfgrass with the goal of having the

industry recognize Washington as the premier producer of turfgrass seed. Our third area of focus will be education. The board is excited about the future of our industry.

Research and operational advancement has always been the focus of the funds that the board manages. There has been a vast amount of knowledge gained over this time and many people have benefited from it. The last couple of years, the commission has recognized the need to pass this information onto our members. We have a large history of information that needs to be available to the grower. We are working on updating our website to make both past and future information easily accessible to our members. We are always interested in the needs and struggles of turfgrass growers and want to help find solutions through research. If you have any concerns please contact a board member.

Washington state has the best growing regions in climate, soil, and the professionalism of our growers to help us create the perfect place to grow the finest turfgrass seed product in the world, and we want to let everyone know about it. If we can make our state the preferred area to buy seed from, all our members will benefit. We are in the process of developing a plan not only to brand our state's product but also actively promote our state throughout the country and the world. The task of marketing is a large one and we know it will take time to do it correctly and effectively. We are going to take on this project slowly and make sure our resources are well managed. We are aware that there are many private companies that are actively working on promoting their products and doing very well. We want to promote our state as an excellent producer of turfgrass seed and make our product the first choice.

Education, both to our members and to the general public, is very important. Our state is a large producer of turfgrass seed and I believe a large portion of our state's population does not even know that any is grown here. We would like to make the public aware of the important role that turfgrass seed plays in the state's economy and the value we create. The best ambassadors for this cause are our own members. We want to work on sharing talking points with our members to help with discussions with their friends and families.

The next couple of years look to be a great time for our industry. A growing economy goes hand in hand with the sales of our products. Let's take advantage of this time to help create a strong Washington State Turfgrass Seed Commission. I hope everybody has a productive 2018.

Thanks,

Travis Meacham Chairman

THE TEAM

Travis Meacham (Grower - Moses Lake) Scott Davis (Grower - Mesa) Keith Burglund (Grower - Pomeroy) JR Swinger (Grower - Lind) Jory Iverson (Handler Rep. - Columbia River Seed) Shane Johnson (Administrator) Victor Shaul (WSDA Rep)



WASHINGTON TURFGRASS SEED ASSESSMENT

The Washington Turfgrass Seed Commission collects 0.3% (three tenths of one percent) on the net receipts on all Kentucky Bluegrass, perennial ryegrass, tall fescue, hard fescue, slender fescue and creeping red fescue from production areas east of the summit of the Cascade Mountains in Washington state. The money is collected at the first point of sale and is deducted from the price paid to the grower. The person or company collecting the assessment on behalf of the grower submits the assessment to the WTSC.

Assessment dollars are used for the following three activities:

Provide for RESEARCH in the production, processing, irrigation, transportation, handling, or distribution of turfgrass seed.



Provide for COLLECTION AND DISSEMINATION OF INFORMATION pertaining to turfgrass seed and turfgrass seed by-products, including programs to market and promote turfgrass seed production in Washington.



Establish and conduct PROGRAMS to develop markets for turfgrass seed by-products.

FINANCIALS

Total Assessment Income \$93,074.21 Interest \$60.06 Total Income \$93,134.27 Total Expenses \$89,967.77 Net Income \$3,166.50 Balance Sheet as of 5/31/17 \$267,784.82



RESEARCH

Vernalization in Kentucky Bluegrass Seed Production

RESEARCHER: MICHAEL NEFF

Professor, Crop Biotechnology, Assistant Chair, Department of Crop and Soil Sciences, Washington State University

With support from the Washington Turfgrass Seed Commission, the Neff lab is addressing the challenge of vernalization in Kentucky bluegrass seed production. They are taking a molecular genetic to identify, clone and characterize genes related to flowering induction in Kentucky bluegrass. They have cloned fragments of two genes, VRN1 and VRN3 (VERNALIZATION 1 and 3) and have shown that they are expressed in Kentucky bluegrass. They are currently cloning the full-length versions of each gene and will investigate the expression levels of the genes in accessions with differential vernalization requirements. They will also examine the effect of the flowering hormones called gibberellins on gene expression, vernalization and flowering induction. The resulting VRN1 and VRN3 sequences and variants could be used by breeders as molecular markers and for targeted genetic modification of flowering time. The results of the gibberellin experiments could be used as an agronomic practice for controlling flowering timing and seed production.



Integrating New Tools for Grass Weed Control in Kentucky Bluegrass & Perennial Ryegrass

RESEARCHERS:

DR. AMBER HAUVERMALE AND DR. IAN BURKE, Department of Crop and Soil Sciences, Washington State University, Pullman, WA

In August of 2017 two field trials were established to examine the effects of bi-yearly field applications of GA on grass weed seed germination and seedbank depletion during establishment, and to identify herbicide systems combining pyroxasulfone (Zidua) or indaziflam (Alion) with mesotrione (Callisto) to provide an integrated management plan leveraging our understanding of seed dormancy and seedbank management with herbicide physiology and targeted herbicide use, rather than relying on herbicides alone. Our preliminary results suggest: 1) that PRE applications of pyroxasulfone or indaziflam in combination with mesotrione provide partial or complete control of downy brome, rattail fescue, alkali grass, and annual bluegrass eight weeks after treatment, 2) while turfgrass emergence may be impacted by PREs, some varieties of perennial ryegrass appeared to have some natural tolerance to both pyroxasulfone and indaziflam, and 3) all grass species tested responded to GA applications. Future research continues to investigate the effects field applications of GA on grass weed seed germination and seedbank depletion through multiple growing seasons, and explore the efficacy of activated carbon, i.e. carbon seeding, in combination with PRE-emergent applications of Zidua (pyroxasulfone) or indaziflam with Callisto (mesotrione) as a way to prevent injury to Kentucky bluegrass and perennial ryegrass seedlings during emergence and stand establishment.

Integrated Disease Management of Ergot in Kentucky Bluegrass

RESEARCHERS:

JEREMIAH DUNG, Oregon State University (OSU), Madras, OR; KENNETH FROST, OSU, Hermiston, OR; NAVNEET KAUR, OSU, Hermiston, OR; QUNKANG CHENG, OSU, Madras, OR; DARRIN WALENTA, OSU, La Grande, OR; STEPHEN ALDERMAN, USDA-ARS, Corvallis, OR; TRACY WILSON, OSU, Madras, OR.

Reporting Period: November 2016-November 2017

Ergot can be a severe disease problem in irrigated grass seed production areas of the Pacific Northwest. Seven fungicide chemistries not currently labeled for ergot were evaluated in first-year field plots of Kentucky bluegrass. Data collected from field trials over three years suggest that fluxapyroxad + pyraclostrobin (marketed by BASF as Priaxor[®]) is effective at reducing ergot. Several other fungicides also have the potential to reduce ergot in grass grown for seed. Although commercial biocontrol products significantly reduced sclerotia germination in petri plate trials, plots treated with the same biocontrol products in the fall and/or spring exhibited a large amount of variability and significant effects were not observed under field conditions. Applications of copper and/or boron did not decrease ergot or increase yield in field trials conducted on Kentucky bluegrass. Differences among calendar-, scouting-, and model-based spray programs were not detected this year, but all performed better than non-treated control plots. In 2017, the previously published predictive degree-day period for the Columbia Basin accounted for 72% of the total spores captured at both sites in the region. Preliminary degree-day models for central Oregon and La Grande have been developed that are over 90% accurate, but still require further testing and validation. Soil moisture was positively correlated with spore counts in 4 out of 5 fields, while wind speed and wind direction were negatively correlated with spore counts in La Grande (3 of 6 years) and the Columbia Basin (9 of 15 years) but not in central OR (0 of 3 years).



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Primary Washington turfgrass seed varieties produced:

- » Kentucky bluegrass
 - l rvegrass »
- » Tall fescue
- » Hard fescue
- » Slender fescue
- » Creeping red fescue