

WHEAT LIFE

APRIL | 2010

Cruising through the Classic—

Good things are still coming from the 2010 Commodity Classic

Best in show—

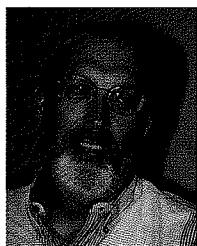
Spokane's Junior Livestock Show boasts 75 years of youth in ag

Special pull-out section—

Just in time for spraying: herbicide rainfast times chart

Private breeding programs take root on WSCIA's bottom line

WASHINGTON GRAIN COMMISSION



by Jerry Robinson, WSCIA manager

New traits being developed in cereal crops and the entry of private breeding programs into the northwest have had both a positive and negative impact on the bottom line of the Washington State Crop Improvement Association.

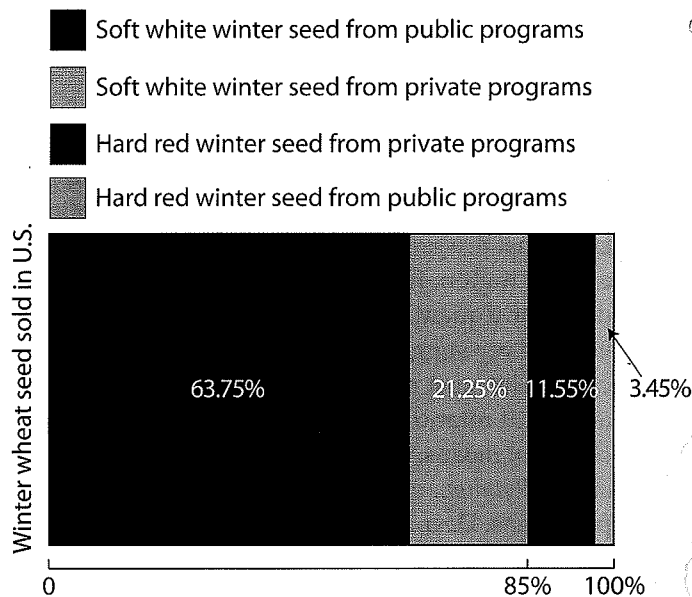
Although the increase in private breeding companies and university breeders using patented traits has been good for WSCIA's certification program, use of the Foundation Seed Program has declined as private breeders turn to commercial seed dealers to increase their certified seed. This means companies which once had WSCIA grow a large share of their foundation seed are finding it more economical to hire private operations to do the task. So, while WSCIA certification income has increased, there has been a corresponding loss for the WSCIA Foundation Seed Program.

Thanks to the foresight of many individuals, especially AE Law, the need for growers to have quality seed and a method of obtaining it, led to the formation of the Washington State Crop Improvement Association in 1946. With the help of Washington farmers and seed dealers, the state now has one of the highest—if not the highest—percentage of certified seed usage for cereals in the United States.

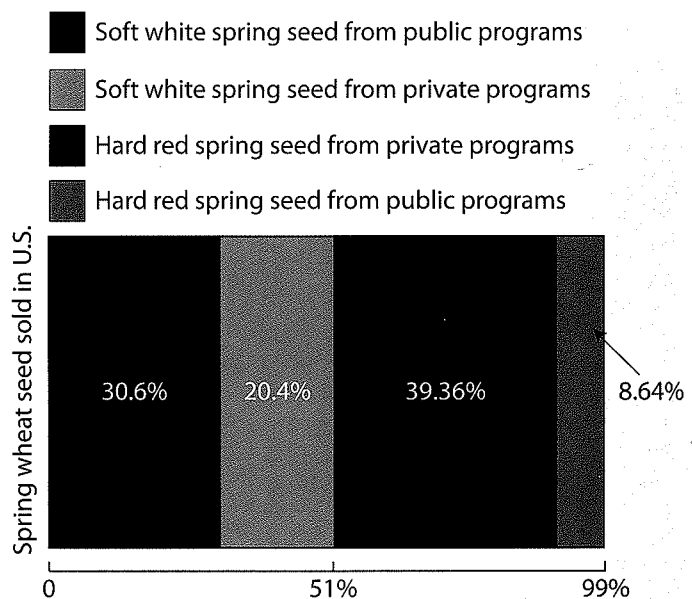
This high usage of certified seed has fostered distinct advantages for growers in the Pacific Northwest. Each lot of seed has to pass stringent field and seed standards, assuring farmers they are purchasing genetically and physically pure seed not more than three generations from the original parent line. Numerous research studies have shown use of certified seed results in a higher per bushel yield than common seed—a clear competitive advantage.

The high usage of certified seed is also one of the major reasons for the investment made into the cereal seed business in the PNW by private breeding companies and trait holders. Certified seed assures trait holders, the grower and seed companies that the value in the "potential of the seed" is protected. The certification process also allows the owners of new varieties to license and allocate seed to all interested parties without concerns about "brown bagging" which can happen in areas with low certification rates.

Virtually every newly-released variety today has a PVP (Plant Variety Protection) attached to it, with some having more restrictive additions such as Title V (seed can only be sold as a class of certified seed) and no plant-back allowed. These patents and restrictions are beneficial to all parties, creating a program that ensures genetic identity and purity. It also gives the trait owner a method to maintain ownership and to be repaid for the investment made to bring a variety to the end user. This repayment on invest-



About 85% of certified fall seed sold in Washington is soft winter white wheat, while the remaining 15% is hard red winter wheat.



About 51% of certified spring seed sold in Washington is soft white spring wheat, while hard red spring seed makes up 48% of the total. The remaining 1% is made up of hard white spring wheat with a 20/80 percent share favoring privates.

ment means that consumers can expect more new varieties with improved traits to continue to come out of the pipeline.

This influx of varieties, both public and private with PVPs attached, is beneficial to WSCIA because most all these varieties are required to be certified in the state they are grown. These new varieties have helped bring stability to WSCIA certification, a welcome bonus in these uncertain times. With this stable base, WSCIA can remain viable and financially strong and continue to supply growers and seed companies with a resource that is not only able to certify seed, but can also provide information and support during its production.

WSCIA is currently responsible for the production and maintenance of foundation seed stock of small grain for both Oregon and Washington. WSCIA works closely with the Oregon State University winter wheat breeding program along with the Washington State University spring and winter wheat breeders, including the USDA/ARS wheat and pulse breeders.

The competition for PNW wheat acres by both private and public sectors has given growers in eastern Washington a huge number of varieties to choose from. The WSCIA spring and fall audits showed a total of 78 varieties of certified wheat planted in Washington State in 2009, with the majority of these varieties being less than 10 years old. Many of the older varieties are being replaced by newer lines which are, for the most part, agronomically superior. In some cases, however, the new varieties are simply added on top of the plethora of varieties currently available.

Meanwhile, private ownership of cereal varieties and traits is becoming more prevalent. Whether they are universities, private individual breeders or international breeding companies, each has a form of licensing, distribution, and method to capture value from their variety ownership.

With the increase of private varieties, the use of WSCIA to generate foundation seed stock has been slowly declining. As I mentioned earlier, 78 varieties were certified last year with 39 of those being from public programs.

About 85 percent of certified fall seed sold in Washington is soft white winter, with 75 percent of that generated from public programs. The balance comes from private programs. The remaining 15 percent of fall certified wheat seed is hard red, and here the numbers are reversed. About 77 percent of the hard red certified seed is sold by private programs with 23 percent from public programs.

Spring varieties planted in the northwest reveal a similar trend. Soft white spring wheat varieties are approximately 51 percent of the total certified seed sold with 60 percent of that "public" and 40 percent "private." Hard red spring seed sales make up 48 percent of total certified seed sales with public varieties capturing 18 percent and privates 82 percent of seed sales. The remaining one percent is made up of hard white spring, with a 20/80 percent share favoring privates.

These numbers clearly show the increase in the privately-held varieties being used by Washington growers, which in turn has an effect on the WSCIA Foundation Seed Program. Taking numbers from the Spring 2009 audit and the Fall 2009 Audit, the WSCIA Foundation Seed Program has suffered a potential 2009 loss of 32 percent in fall sales and 60 percent in spring sales. Granted these numbers are very broad, but they are based on actual reported certified seed sales in Washington. The overall point is that we are in the beginning of a transformation from what was once the stronghold of public breeding to a private sector breeding program.

No one holds a crystal ball when it comes to the future, but the trend is clear. Privates are exerting much more influence in the northwest and will have a significant effect on WSCIA operations, not to mention the operations of the farmers it serves. ■

Trusting, verifying the Clearfield Wheat trait

The use of Clearfield® trait wheat has transformed from a new and novel idea to a mainstream attribute used in PNW wheat and other areas of the United States. Other traits that breeders are currently working with are drought tolerance, better nitrogen utilization, and higher protein. With these new traits comes the question of whether or not to make the testing and verification of that trait a part of the certification process. This is new and controversial territory for the certification agencies in the United States and has created some headaches for some certification agencies.

The Washington State Crop Improvement Association, Oregon Seed Certification and Colorado Seed Growers have decided to move forward on this controversial issue and include the "Clearfield Confirm" test results as part of the certification process on Clearfield® wheat varieties.

There are several reasons for the move forward to include Clearfield® trait testing as part of certification. These include liability for WSCIA, and the ability to provide the grower assurances the certified seed being purchased contains the stated specific trait. Since there is currently a repeatable scientific test to confirm the trait's presence in the seed, it was only natural to move one step further and include trait testing as part of certification. Moving forward into the trait testing/certification arena will help certification agencies remain a relevant and necessary part of both public and private seed programs in the future. By staying on the sidelines and doing "business as usual" we could become more of an impediment to the seed industry than an integral part. ■