



Chairman's Report – by David Sharp



I could have mixed thoughts about the AGRPC issuing a newsletter this fall after the “annual” letter was sent to many of Arizona’s barley and wheat growers in the spring of 2020. But I don’t, because touching base with Arizona’s fellow potential grain growers now should allow some of them to review the U of A’s just released 2020 barley and wheat variety trial publication before planting season, rather than when crops are maturing next spring. The summary results of

the 2020 trials accompanying this letter may assist at least some growers in making varietal planting decisions.

Regrettably, another reason for distributing this variety information now is that the U of A will not conduct its independent barley and wheat yield trials in 2021 and then analyze results in combination with data from similar trials conducted by Arizona’s private breeding firms. Consequently, there will be no updates of varietal performance published, at least for the near future.

The AGRPC has funded most of the cost of conducting the trials at the U of A’s Maricopa Ag Center for many years. However, a combination of circumstances at the present time precluded the usual annual variety trial grant proposal that has been submitted by the U of A. Growers and others who wish to review the reports of past variety trials and other research projects funded by the AGRPC can find them at the following Arizona Department of Agriculture website location:

<https://agriculture.az.gov/arizona-grain-research-and-promotion-council-previously-funded-research-projects>

What does the 2021 grain crop market look like?

Growers know that recent durum prices have not been conducive to planting much Desert Durum® in Arizona. And current local market intelligence suggests that not much will change as we approach our 2021 crop planting season. The 2020 northern U.S. and Canadian durum crops were of substantial size and largely graded No. 1 in quality. Previously large durum stocks have dwindled and U.S. growers aren’t selling much of the new crop. But millers seem content with apparent current supplies and don’t see a need to bid up new crop Desert Durum® prices.

The supply/demand picture suggests that Arizona’s 2021 durum crop acreage will not differ much from the 2020 acreage, which calculates out to about 50,000 acres, based on assessments remitted to date. And, those relatively low corn prices continue to keep a lid on barley price offerings in Arizona.

Desert Durum® quality remains critically important

We know that the Italian export market has purchased well over half of our Desert Durum® production in recent years. Italian pasta makers count on the consistently superior quality traits of our grain to maintain their pasta product quality. The AGRPC encourages all Desert Durum® growers to assist in maintaining that quality reputation by growing quality varieties and providing the nutrients necessary to achieve it. X

Desert Durum® Continues to Deliver Consistently Excellent Quality

[NOTE: U.S. Wheat Associates recently published this article]

Desert Durum® is a registered certification mark owned jointly by the Arizona Grain Research and Promotion Council (AGRPC) and the California Wheat Commission (CWC). The mark certifies, or is intended to certify, that grain so-named is at least 90% wheat grain produced under irrigation in the desert valleys and lowlands of Arizona or California. The 2020 crop will again deliver the valuable milling, semolina, and pasta quality traits that customers have learned to expect and appreciate.

Historical Perspective

Before providing details on the 2020 Desert Durum® crop’s quality, here is a look back by Arizona Grain Research and Promotion Council (AGRPC) Executive Director Allan B. Simons at how this unique and valuable commodity evolved into the identity preserved product it is today.

Arizona and California farmers grew durum wheat widely in the decades before 1980. However, the varieties available at the time generally possessed such mediocre milling and semolina flour qualities that this “desert durum” suffered a rather poor reputation among both domestic and foreign semolina millers and pasta makers. Therefore, much of this production was consigned to livestock feed.

Somewhat better quality durum varieties were being grown and even exported by the very early 1980s. However, a cross between several northern durum varieties and two high-producing desert varieties, performed by a private cereal breeding firm in 1976, serendipitously produced a line possessing such superior color and pasta quality traits that it was introduced to a major Italian pasta company in 1980/81. The Italian firm began importing this durum, first in containers before moving to cargo ship holds. The variety (‘WestBred 881’) was awarded a plant variety protection certificate in 1982 and occupied significant crop acreage in Arizona and the Imperial Valley of California by 1983. This variety, with its very desirable qualities, represented the first in a long and continuing line of high-quality durum varieties adapted to the southwestern U.S. deserts developed and released by Arizona’s private breeding programs to be sold both domestically and overseas. The grain produced by these varieties is known now as Desert Durum®.

About half of annual Desert Durum® production in Arizona and California has been exported for many years, with Italy as the perennial leading export destination. One reason for Italy’s continued purchase of Desert Durum® is that Italian pasta makers highly value the various quality traits of the durum wheat that they mill into semolina for making pasta. Desert Durum® possesses the valued semolina quality traits that allow Italian pasta makers to maintain their product quality standards as they deal with typical expected annual variability of durum grain quality from other sources.

Arizona wheat farms possess limited grain storage capability, so most of the annual Desert Durum® crop is grown with an understanding that it will be “identity preserved,” a program by which

Desert Durum® Quality- Continued from Page 1

the grower plants certified seed purchased from the grain handler that will eventually buy the crop. The grain crops are harvested, delivered, and stored by variety for future shipment to fill existing or future customer orders. Also, the handlers continually remind growers of the critical need to maintain production practices that achieve the expected quality standards for Desert Durum®. Grain handler representatives annually discuss varietal traits, production conditions, price prospects, shipping realities and other factors with customers. They also work with U.S. Wheat Associates (USW) representatives to support and inform potential Desert Durum® export buyers.

Sustainability Metrics

Some Desert Durum® customers have adopted “sustainability metrics” for their grain purchases that tend to cast an unfavorable reputation on small grains production in certain environments. One such negative metric suggests that wheat grown with substantial irrigation possesses a relatively high “water footprint,” defined as the quantity of water needed to produce a unit of grain.

The AGRPC recently commissioned a University of Arizona study that reviewed a wide range of the literature and production practices and environments that influence the metric. The study concluded that Arizona’s durum wheat production, as currently practiced, has a water footprint that is lower, to much lower, than evidenced in many other durum production regions. Furthermore, the report observes that the water footprint values stated or calculated for durum wheat production under Arizona’s conditions are over-stated on many sustainability websites. This report can be accessed on the following website under 2015 project reports: <https://agriculture.az.gov/arizona-grain-research-and-promotion-council-previously-funded-research-projects>

2020 Crop Quality

Desert Durum® crops grown in Arizona and Southern California enjoy weather conditions and management practices that promote consistently favorable grain, milling, and semolina traits. These crops are seldom negatively affected by adverse weather events. The result is grain of consistently large and low-moisture kernels possessing very high hard amber durum counts and which yield high semolina extraction rates.

The combined results of Desert Durum® surveys conducted by the AGRPC and CWC reveals the following 2020 crop data. The average grade is No. 1 Hard Amber Durum (HAD). Test weight is 62.3 lb/bu (81.1 kg/ha). The average hard vitreous amber kernel content (HVAC) is 99.0%, a high average typical of Desert Durum®. Average damaged kernels are 0.2% and total defects are 0.6%. Desert Durum® is characterized by its low kernel moisture content and this year’s average is 6.9%. Protein content average is 14.5% (12% mb).

Semolina and Processing Data

The semolina extraction rate average across varieties is 71.1%. The semolina b* value is 32.7, higher than the 2019 b* value of 29.2. Wet gluten is 34.7% and gluten index is 87. Semolina Mixograph score is 7 and alveograph W value is 294 (10-4 J), both of which indicate high strength. Pasta color b* value is 43 and score is 9.6. Pasta cooked firmness is 7.4, higher than 2019. ✕

2020 Arizona Karnal Bunt Survey Results

USDA/APHIS in Phoenix has reported that all 43 host crop fields, totaling 1,287 acres, in the 2020 regulated area tested negative for KB. This is the third consecutive year of all negative testing. Also, 27 previously regulated fields are to be deregulated following five years of tillage with no host crop. Thirty-seven fields remain in their regulated status pending further tillage

A total of 3,325 fields covering 127,690 acres continue to be regulated. This is a reduction of 42 fields representing 3,606 acres from the 2020 crop season totals. ✕



Photo courtesy of the California Wheat Commission

Note: This Desert Durum® article was co-authored by the AGRPC and U.S. Wheat Associates (USW) and published in USW’s “Wheat Letter.” (USWheat.org - then Click on Wheat Letter under “News and Events” and scroll to September 28.)

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AGRPC’s FY 2020 Finances (Ending June 30, 2020)

Beginning Funds Balance	\$177,899	2019 Crop Tonnage
Income items:		Wheat = 140,747
Total Assessments	69,318	Barley = 32,548
Investment Income	2,250	
Less Refunds to Producers	(6,026)	
Net Income	\$65,542	
Total Operating Funds Balance	\$183,441	
Expenses		
Executive Director	\$18,000	
AZ DA Administration	7,500	
U.S. Wheat Associates	8,500	
Travel & Meeting	5,555	
Desert Durum® Quality Survey	2,414	
Annual Newsletter	1,355	
Promotion & Service	13,030	
Research Projects	40,078	
Total Expenses	\$96,432	
Ending Funds Balance	\$87,009	
Encumbered Misc. Funds	\$(37,649)	
Unencumbered Funds Balance	\$49,360	

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