

<b>Checkoff supported Research projects</b>	<b>Actual FY 2020-21</b>	<b>Budget FY 2021-22</b>
<b>End Use Quality</b>	<b>\$766,000</b>	<b>\$772,690</b>
Ag Products Development Center	\$300,000	\$300,000
Crop Quality Survey	\$60,000	\$60,000
Durum Quality Research Support	\$45,000	\$45,000
End-Use Market Development	\$50,000	\$50,000
HRS Quality Research	\$40,000	\$40,000
HRW Quality Research Support	\$30,000	\$30,000
Kernel Bleaching of Durum	\$30,000	\$0
Kernel Structure on Milling Quality	\$0	\$36,070
Mixograph	\$33,000	\$33,620
Specialty Wheat Quality Research Support	\$47,000	\$47,000
Specialty Wheat Quality Research Technician	\$58,000	\$64,000
Technical & Info Services	\$58,000	\$62,000
*Tempering HRS Wheat w/Chlorinated Water	\$5,000	\$5,000
Vibe QM3 Seed & Grain Analyzer	\$10,000	\$0
<b>Wheat Breeding/ Genetics</b>	<b>\$438,933</b>	<b>\$346,470</b>
Develop Haploidization System for Wheat Breeding	\$34,826	\$0
Durum Breeding	\$105,000	\$105,000
Durum Germplasm Low Cadmium	\$18,100	\$18,100
Enriching the Gene Pool for Wheat Impr	\$35,000	\$0
*Eval Durum Lines for Kernel Shape/Size	\$8,257	\$0
Field Plot Combine	\$60,000	\$20,000
Genomic Selection to Improve Durum Yield/Quality	\$33,000	\$15,000
Genomic Selection to Accelerate Breeding Populations in Spring Wheat	\$20,000	\$35,000
HRS Wheat Breeding	\$100,750	\$129,370
HRW Breeding	\$24,000	\$24,000
<b>Agronomic/Disease/Pest Management</b>	<b>\$234,012</b>	<b>\$260,539</b>
DON Testing of Durum in Western ND	\$7,080	\$10,000
DON Testing of HRS in Western ND	\$7,080	\$8,000
*Durable Rust Resistance in HRS	\$0	\$3,480
Eval Fungicide Seed Treatments	\$8,060	\$0
*Eval Fungicide Programs in Leaf Spot Pathogens	\$0	\$4,250
Eval Germplasm to Stem/Leaf Rust Resistance	\$35,099	\$35,099
Eval Management Tool for Ergot	\$0	\$18,099
Eval Stripe Rust Pathogens at High Temps	\$18,000	\$18,000
Eval Tools for Head Blight/Ergot/Leaf Streak	\$25,190	\$25,190
FHB Resistance in Wheat	\$30,000	\$30,000
*Field Validation of N Cycling from Crop Residue	\$0	\$4,039
*Genomic Back Cross to Improve Durum Yield	\$3,000	\$3,000
*Investigate Prevalence of Tan Spot in Durum	\$6,693	\$0
Method to Detect Bacterial Leaf Streak Pathogen	\$21,480	\$21,480
New Varieties High Input Management	\$19,500	\$19,500
*Nitrogen Dynamics in Mixed Species Crop Residue	\$5,916	\$0
*Plant Resistance to Wheat Stem Sawfly	\$6,914	\$6,914

*Prevalence of ToxA in Biopolaris Sorokiniana	\$0	\$2,889
Resistance to Bacterial Leaf Streak	\$30,000	\$30,000
*Sensor Algorithms for Yield & Protein Increase	\$0	\$4,199
*Testing QTL for Tan Spot	\$0	\$6,400
Wheat Midge Survey	\$10,000	\$10,000
<b>Marketing/Economics</b>	<b>\$78,000</b>	<b>\$78,000</b>
Market Development Support	\$20,500	\$20,500
Strategy/Analysis for New Technology Collaborations	\$22,500	\$22,500
Upper Great Plains Transportation Institute	\$35,000	\$35,000
<b>Other</b>	<b>\$180,000</b>	<b>\$255,000</b>
Equipment Maintenance	\$30,000	\$30,000
Northern Crops Institute General Support	\$100,000	\$75,000
New Technology Research Contingency	\$0	\$100,000
Wheat Marketing Center	\$50,000	\$50,000
<b>Soil Science</b>	<b>\$99,011</b>	<b>\$109,498</b>
Biological & Plant Growth Regulator Treatments for HRS	\$0	\$10,395
Define Wheat Response to Salinity	\$31,628	\$ 31,628
In-furrow Fertilizer Comparison for HRS	\$0	\$ 16,695
Liming Impacts of HRS & Soils in western ND	\$0	\$ 26,780
Lysimeter Study	\$18,540	\$ -
SHARE Farm-Larimore	\$48,843	\$ 24,000
<b>Total</b>	<b>\$1,795,956</b>	<b>\$ 1,822,197</b>

\*Checkoff match to grants approved by the Wheat Research Committee of the State Board of Agricultural Research and Extension (SBARE).