

March 2022

Senator Mary Duvall

## A Legislative Review



Legislators have introduced a total of 551 bills in the 2022 Session. This is an increase of 73 over last year, and the highest since 1998 when 572 bills were introduced. For further comparison. the lowest number of bills ever introduced was in 2017 when 394 bills were introduced, and the highest number was in 1957 when 929 bills were introduced. Many of this year's

bills are dealing with the increase in special appropriation dollars from the federal government.

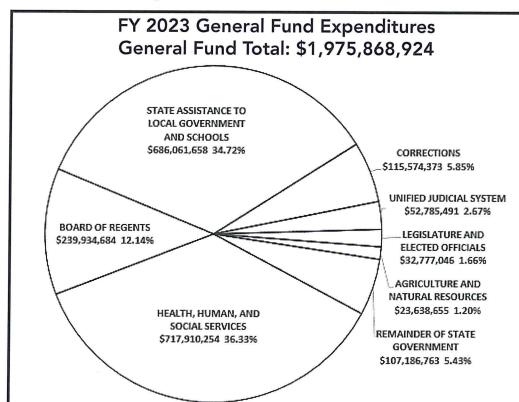
More than half of the state's general fund comes from the sales and use tax. The contractor's excise tax, lottery receipts, insurance company tax, and tobacco taxes together contribute about twenty percent of all general fund receipts.

While South Dakota has seen record increases in general fund revenue over the past two years, we do not think that growth is sustainable. The average growth rate of sales and use tax collected in South Dakota was about 4.7% from 2011-2020. The general fund projection for FY22, which ends June 30, 2022, is to finish at 6.5% above the amount collected in FY21. However, the projection for FY23 is far more modest, with the revenue subcommittee recommending a growth of less than one percent.

South Dakotans paid nearly \$1.5 billion in property taxes last year. At a time when property values are increasing, we hear concerns about high property tax bills. It is important to differentiate between assessed value, taxable value, and the amount of taxes due.

The State of South Dakota does not collect or spend

property tax dollars. Rather, property taxes are used at the local level. Over half of all property taxes are used to support local schools; the rest pays for cities, counties, and special purpose districts such as those for water development, rural fire protection, and ambulance service. While the legislature sets the levy for K-12 public schools, the levy for other units of local government is based on the budgeted need. County budgets are allowed to increase from one year to the next by the lesser of three percent or the rate of inflation. plus new construction. The total budget is divided by the taxable value to determine the mill levv. One "mill" is one dollar of taxes per thousand dollars of assessed value. The mill levy multiplied by the taxable value determines the total tax bill. If taxable values increase and the budget stays the



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## The Wheat Quality Council Variety Results

The WQC is a collaborative effort of wheat commissions, public and private wheat breeders, and wheat millers. Annual grow-outs are conducted to compare the milling quality of recently developed public and private varieties. Some varieties have already been released and others are on track for release in near future. The results of these grow-outs are widely studied and become a bit of a competition between the breeders.

All varieties are compared against Jagalene (check variety) which was an AgriPro release in 2002. It has been recognized for many years as a strong target variety for milling characteristics. Unfortunately, it is no longer grown on a large scale due to developing susceptibility to leaf and stripe rust.

Congratulations to Dr Sunish Sehgal on his outstanding results for the two SD HRW varieties that were entered. Sunish entered two SD varieties:

- \* SD12DHA01373 which was released as 'SD Midland'
- \* SD15035-2 which is scheduled for increase in 2022

The SD varieties have finished extremely strong along with the check variety (Jagalene) and a promising Nebraska variety. These results are a strong testimony to the investment by the South Dakota Wheat Commission into variety development and milling quality analyses.

	2021			2 year		
	Yield	Test Wt	Protein	Yield	Test Wt	Protein
Variety	(bu/a)	(lbs)	(%)	(bu/a)	(lbs)	(%)
SD Andes	71.8	61.4	12.6	76.4	60.8	12.6
SD15035-2	68.8	61.6	13.3	76.0	61.0	13.0
Winner	69.7	60.7	12.8	75.5	60.2	12.6
Ideal	71.4	61.7	12.7	74.8	60.3	12.6
SD12DHA01373	72.3	60.8	12.7	74.8	60.0	12.7
WB4462	70.0	61.2	12.7	74.7	60.3	12.9
SY Wolverine	69.0	60.5	13.1	74.4	59.7	13.1
WB4309	71.0	60.3	13.1	73.9	59.6	13.5
Cowboy	68.2	60.7	12.1	73.8	59.8	12.0
Guardian	68.7	61.8	12.7	73.2	61.1	12.6
LCS Diesel	66.6	61.0	12.9	73.2	60.1	13.0
Draper	66.9	60.5	13.3	73.2	59.5	13.0
Redfield	67.9	60.8	13.6	72.9	60.1	13.3
LCS Helix AX	65.6	61.5	12.4	72.4	61.1	12.3
Oahe	70.8	61.5	12.9	72.4	60.7	12.9
Langin	66.5	60.7	12.5	72.3	60.0	12.4
Thompson	68.6	60.6	12.9	71.0	60.2	12.8
Overland	66.7	61.3	13.1	70.7	60.7	13.0
CP7909	64.7	61.0	12.8	70.5	60.0	12.6
ND Noreen	68.5	61.1	13.4	70.2	61.2	13.2
NE14696	63.9	60.0	13.2	70.1	59.9	13.1
AP 18AX	64.0	60.0	13.0	69.7	59.2	12.8
Crescent AX	60.8	60.9	13.3	69.3	60.5	13.1
SY 517 CL2	57.9	61.7	13.6	65.0	61.1	13.4
Expedition	59.5	61.2	13.7	64.9	60.4	13.4
CP7050AX	56.4	61.2	14.0	63.3	60.9	14.1
Trial Average	66.8	61.0	13.1	72.0	60.3	12.9
LSD (0.05)	4.2	0.8	0.4	5.6	1.1	0.5
CV	7.2	1.1	4.0	6.3	1.4	4.6



## Margin Management in an Inflationary Environment



In a matter of 12 months, businesses and consumers have gone from an environment with inflation rates at a 30 year low to one reminiscent of the 1970s. Digging deeper, inflation, as measured by the Consumer Price Index (CPI), hovered under five percent all but

one year since 1992. When compared to World War II, the post-World War II era, and the 1970s when inflation reached 15 to 20 percent, one could say inflation looks tame today. However, behavioral economists would quickly state that inflation has been a moot point for so long that these increases are a shock to human emotions.

#### Causes of inflation

The contributors to the recent burst of inflation represent a convergence of events. The amount of government stimulus and the double-barreled approach of accommodative fiscal and monetary policy by central banks around the world in an attempt to lift and maintain economies let the iinflation genieî out of the bottle. Government stimulus amounted to approximately 14 percent of the \$85 trillion world economy. Generous checks to individuals and businesses coupled with a lockdown of the service-based economy and the extended unemployment benefits added fuel to the inflation fire. The inflation rate has been hovering above five percent and just below 10 percent, as measured by the Producer Price Index (PPI). The next culprits were supply chain bottlenecks in oil and energy. The pullback from globalization with tariffs and trade restrictions accelerated supply chain issues. Computer components and manufactured goods for service economies have been bottlenecked in supply chains. Finally, the movement away from fossil fuels to green energy and disinvestment in traditional sources of energy has given leverage to Russia and OPEC, who have been flexing their negotiation power.

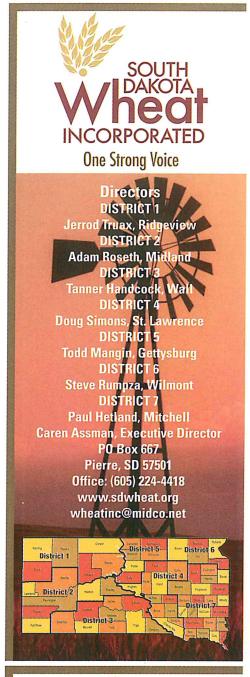
## Depth and duration

What is the depth and duration of this inflationary period that could provide some perspective in the business planning and decision-making process? Inflated input costs will be a fact of life for this year and most likely the following year. Oil and energy issues will not be resolved quickly. Any political or military threat that disrupts oil and energy production or distribution will cause volatility. For example, China and Russia are large producers of components used in fertilizers and sprays. Any military action involving these countries will likely cause a spike in prices.

Bottlenecks in shipping and trucking as a result of the retirement of the baby boomer trucker workforce and intense regulation will result in additional pressure and higher inflation. The Federal Reserve will raise interest rates to cool inflating trends, but will it be enough if consumer confidence picks up and \$2.5 to \$2.8 trillion of unspent government stimulus filters out into the economy?

In the longer term from 2025 to 2030, inflationary pressures may soften as a result of automation replacing labor, which is a high priority strategy for most large businesses. Second, as baby boomers age, spending patterns will become more conservative, resulting in inflationary pressures not only here in the United States but in Europe, Japan, and China.

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## 2022 South Dakota Grain Engulfment Prevention Summit



April 6, 2022 | 9:00am - 1:15pm Mitchell Tech 1800 East Spruce St., Mitchell, SD **FREE Admission and Lunch** 

Preventable entrapment cases and fatalities related to grain bin entry are on the rise due to less than ideal grain storage conditions. Protect your employees and your company by attending the 2022 Grain Engulfment Prevention Summit.

#### **AGENDA**

8:30am - 9:00am: Registration

9:00am - 10:00am: Dawn Chisholm, 'If Only' founder, speaks about the day she lost her first husband, Bill, in a workplace accident. She gives insight into why it happened, how it could have been prevented, the importance of her community and circle of support, and her current happy and blessed life she thought she might never have again.

10:00am - 10:15am: Break

10:15am - 11:00am: Q & A Panel Ag Safety Professionals

11:00am - 11:45am: Lunch

11:45am - 1:00pm: Silo the Film Movie Screening

#### THANK YOU SPONSORS!















Seating is limited - Registration ends March 30, 2022

Register online at: https://howaltmcdowell.formstack.com/forms /grain\_engulfment

> Questions? Call Pamela Intermill at (605) 651-2760

TTENDEES GET ENTERED INTO A DRAWING

# **Economics of Different Crop Rotation Systems** in South Dakota

Economic returns are an important factor to consider when selecting crop rotation systems. Relatively low profitability of third and fourth crops can pose a barrier to farmers' adoption decisions (Wang et al., 2021). However, little information regarding the economic performance of different crop rotations is available in a transitional climate zone of eastern South Dakota.

In a recent study, Feng et al. (2021) compared three four-year diverse crop rotations with the two-year cornsoybean (CS) rotation. The four-year diverse crop rotations were: 1) corn-pea-winter wheat-soybean (CPWwS), 2) corn-soybean-spring wheat-pea (CSSwP) and 3) corn-oatwinter wheat-soybean (COWwS). This is part of a longterm, no-till crop rotation experiment established in 2000 at the Eastern South Dakota Soil and Water Research Farm near Brookings, South Dakota. In the beginning of the fouryear study cycle (2013-2016), Nitrogen (N) fertilizer was applied to all plots at following rates: 90 lbs./acre for corn, 103 lbs./acre for oat and 116 lbs./acre for winter/spring wheat. Thereafter, the N fertilizer application rate was determined based on fall soil testing results aiming for an 85% of crop yield goal. No fertilizer was applied in the pea and soybean phases of each rotation.

Net Revenues of corn and soybeans in different crop rotations.

The synergy among the crops made a difference in corn yields for four different rotations. For instance, corn following pea had a greater yield than corn following soybean. Among all rotations, the CSSwP rotation had the highest corn yield.

As shown in Figure 1, net revenues for both corn and soybean in the CSSwP rotation ranked the highest among all rotations. While the two-year rotation has the second highest revenue for corn, it has the lowest revenue for soybeans. This is due to the lower soybean yield in the two-year CS rotation than those in the four-year diversified crop rotations.

## Economic Performance — Overall economic performance of different crop rotations.

Figure 2 displays the total cost and net revenue for the three four-year rotations in comparison with the one two-year rotation, as averaged across the study period. The total production costs, including machinery operation, fertilizer, herbicide and seed, for the two-year CS rotation ranked the highest among all crop rotations. Specifically, the total cost for the CS rotation was 7%, 15%, and 18% greater than the COWwS, CPWwS and CSSwP respectively. Among the four-year rotations, the CSSwP rotation has the highest net revenue among all rotations, which surpasses the CS rotation in terms of reduced cost and increased net revenue. Other than CSSwP, the other crop rotation systems in our study are not as competitive as CS when it comes to net revenue comparison.

#### Summary

A comparison of the three four-year diverse crop rota-

tions with the two-year CS rotation indicates that the right selection of crop rotation system plays an important role in optimize economic returns. The two-year CS rotation may achieve the highest economic returns with sufficient fertilizer input, yet this simplified rotation lacks resilience when N fertilizer is applied below the level for yield maximization goal, as demonstrated by declining economic returns over the study period.

In comparison, the CSSwP rotation is resilient to a reduced-N fertilizer application rate, with the lowest total cost and highest net revenue among all rotations. Our study suggests that extending the CS rotation to the more-diversified crop rotation, such as CSSwP, offers the potential to improve economic returns and reduce the overreliance on N fertilizer.

### References

Feng H., T. Wang, S. L. Osborne, and S. Kumar. 2021. Yield and Economic Performance of Crop Rotation Systems in South Dakota. AgroSystems, Geosciences and Environment, 4:e20196.

Wang T., H. Jin, Y. Fan, O. Obembe, and D. Li. 2021. Farmers' adoption and perceived benefits of diversified crop rotations in the margins of Corn Belt. Journal of Environmental Management, 293: 112903.

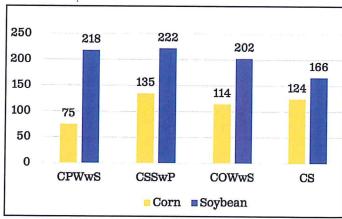


Figure 1. Net revenue of corn and soybean in each rotation (Unit: \$/acre). Source: Feng et al. (2021)

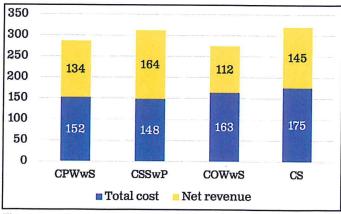


Figure 2. Net revenue and total production cost for each crop in four rotation (Unit: \$/acre). Source: Feng et al. (2021)

## Margin Management

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### Managing the inflationary cycle

Managing through the inflationary cycle requires innovation, focus, and intensity in decision-making. Good and bad decisions compound over time, but inflation accelerates the difference in an exponential manner. Budgeting will be a high priority during the decision-making process over the next several months. When developing budgets, a three-pronged approach will be necessary.

On the cost and input side, every line item will need to be examined and carefully scrutinized. Production decisions will be linked to operational efficiency with breakeven scenarios. In a recent seminar with agriculture producers, over half were utilizing enterprise budgets to ascertain breakeven points. This information allows one to make decisions with a focus on the most profitable combination of crops and livestock. Breakeven points will be a moving target this year as a result of inflation and pricing uncertainty.

The second prong of the analysis will be pricing your production. Keep a close eye on weather in the Southern Hemisphere, Ukraine, and other production belts around the world to incorporate this data into the decision-making

process. Having a disciplined marketing and risk management program will be a tall order for 2022. Profit and, in some cases, minimization of losses will be the result of objective decision-making.

The third prong of the budget process is interest rates. The Federal Reserve has signaled three and possibly four interest rate increases in 2022. After writing this article, I will finish developing the cash flows and business plan for our creamery. In the financial sensitivity analysis, two increases of 25 basis points and four increases of 25 basis points on our variable debt has been inputted. The worst-case scenario would be more than four interest rate increases. What will be your strategy?

Finally, margin management will require close monitoring of your balance sheet, specifically working capital. Hopefully, in the last two years you were able to build some reserves. Negative margins may require drawing on these reserves. In some instances, the reserves may be used to capitalize on input or marketing decisions to garner stronger returns in your business. Remember, working capital is a pivot strategy to block adversity and capitalize on opportunities.

## Legislative Review

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same, the tax levies decrease. If taxable values stay the same and budgets increase, then levies increase.

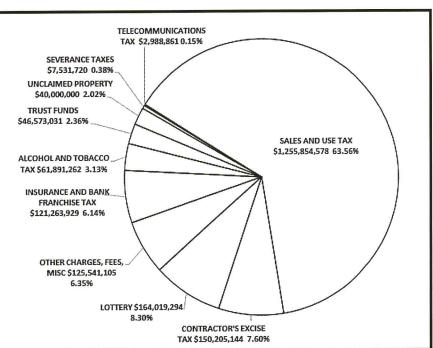
Owner-occupied homes, agricultural land, and commercial property are all treated equally when setting the levy for local governments. For the school general fund levy, however, these three classes of property are treated differently, with agricultural land taxed at about forty-five

percent of what owner-occupied homes are taxed, and owner-occupied homes taxed at slightly less than half of commercial property.

Anyone with questions about the property tax process should contact the South Dakota Department of Revenue at https://dor.sd.gov/.

FY 2023 General Fund Receipts

General Fund Total: \$1,975,868,924



# Steps to Assistance How to Get Assistance from NRCS for Farms, Ranches, and Forests

Visit your local NRCS field office to discuss your goals and work with staff on a conservation plan.

APPLICATION

With the help of NRCS, complete an application for financial assistance programs.

ELGBILITY

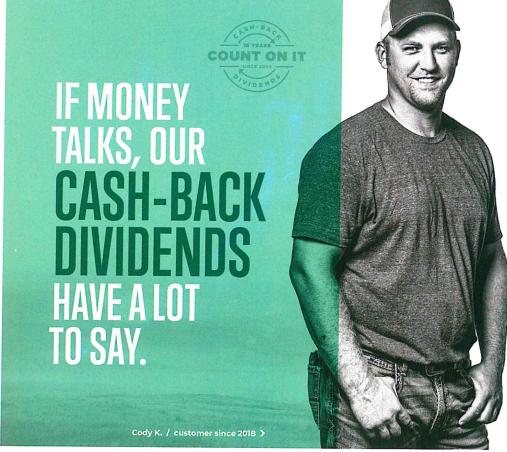
Find out if you're eligible for NRCS' variety of financial assistance programs.

**NRCS ranks** applications according to local resource concerns. IMPLEMENT

Put conservation to work by signing a contract and implementing conservation practices.

Find your local NRCS Service Center: www.offices.sc.egov.usda.gov/locator/app Phone: (605) 352-1200 | www.sd.nrcs.usda.gov

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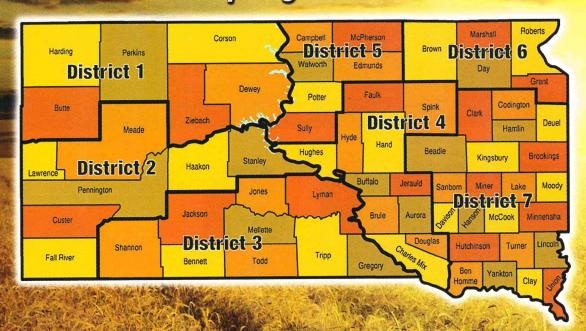
Approved 2021 cash-back dividend, based on 1% of a customer's eligible average daily loan balance, is estimated at \$296 million. Terms Apply. See website for details.

## 2022 Wheat Yield Contest

Seven Districts will award two prizes each 1st - 500 2nd - 300

www.sdwheat.org to apply

May 15, 2022, is the application deadline for spring and winter wheat.



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