

2021 Year in Review

By NCIS Staff

Introduction

This article reports on the 2021 crop insurance season, highlighting the significant events that affected the crop insurance industry. We begin with a discussion of weather conditions and their impacts on crop production followed by a review of commodity markets and prices. Results for Federal crop insurance are then presented along with a discussion of changes to the program. The article concludes with discussion of Crop-Hail experience for the United States and Canada.

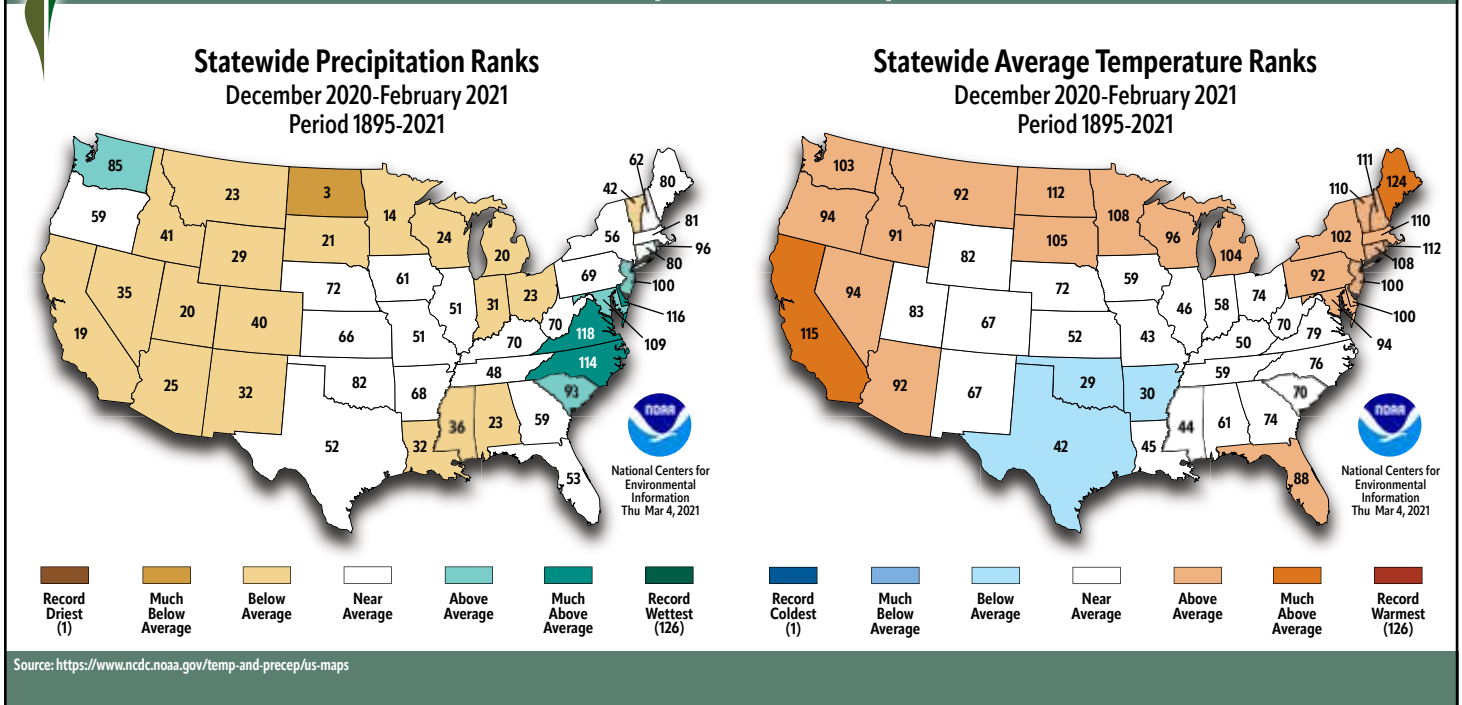
U.S. Weather and Production of Major Crops

There were improvements in many areas of the agricultural economy in 2021, but weather and climate events continued to be a major cause of concern for U.S. farmers. However, farmers are secure in knowing that crop insurance is there to help those affected by adverse weather events and provide the foundation to support their re-

covery if need be. Increased program participation by farmers stands as continued evidence of the important role of crop insurance in the safety net for farmers facing an uncertain weather and climate future. The weather in 2021 continued to be variable with some areas plagued by regionally troublesome events over the course of the year. However, the experience in much of the Midwest was extremely favorable. The following season by season overview provides a review of how weather developed throughout the year and the general impacts it had on farming operations across the United States.

Figure 1

Winter 2021 (Dec-Feb): Statewide Precipitation and Temperature Ranks, 1895-2021



Winter 2020-2021

The winter of 2020-2021 was relatively mild despite the country experiencing the coldest February in 32 years. The sudden arctic blast in February had the potential to damage winter wheat in the Plains where snow cover was limited. The most affected area from the record low temperatures was southern Texas, where citrus and winter vegetables experienced severe damage. Sugarcane producers in Texas and Louisiana also expressed concerns about the potential negative effects on yields in the coming season. In addition, power outages exacerbated cold related affects in the form disruptions in water supply from broken and frozen pipes. These impacts were especially noticeable in ornamentals and nursery stock where lack of electrical power limited the use of freeze-mitigation activities. Overall, except for the south-central United States, most of the country experienced above normal temperatures, especially in northern New England (Figure 1).

The warmer winter was accompanied by continuing widespread drought. From December to February, drought coverage hovered in the 45 to 47 percent level across the United States. Statewide above average precipitation for the Winter was

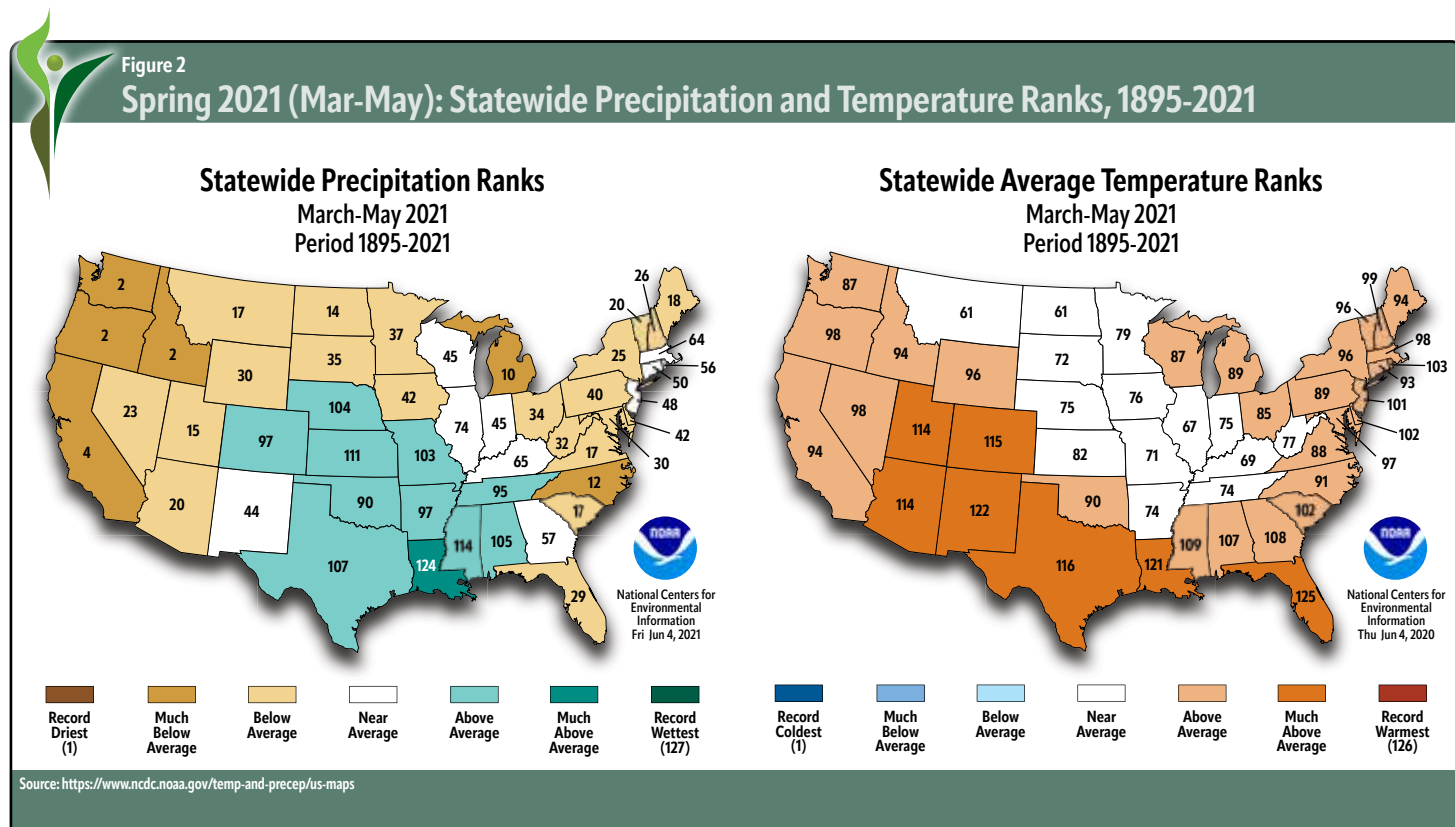
limited to Washington and mid-Atlantic seaboard states (Figure 1). Some improvement did occur resulting from late-winter precipitation in the Northwest extending to the central Rockies. Meanwhile, heavy rainfall in the Kentucky River basin caused major flooding in that area. Minor flooding also occurred in an area from northeastern Texas to the central Appalachians and Ohio Valley.

Perhaps as a foreshadowing of things to come as we confront the possibility of enhanced weather variability, an event of note occurred during the beginning of the winter. An unusual and historic December derecho, classified as a serial derecho—a windstorm associated with an unusually strong and fast-moving line of thunderstorms—moved across the Southwest to the Upper Midwest on December 15, 2021. The storm generated at least 55mph hurricane-force wind gusts (exceeding 75 miles per hour),¹ breaking the previous one-day record (since tracking began in 2004). All previous records were set during the summer months. This event was the first of its kind ever to be recorded in December in the United States. While much less powerful in comparison to the 140 mph winds recorded in the August 2020 derecho, the storms resulted in severe damage, particularly with structural damage to homes and outbuildings.

Spring 2021

March brought the beginning of spring with warming temperatures replacing the chill of the February cold snap (Figure 2). Cooler than normal weather was limited to the area west of the Rockies with above normal temperatures prevailing in the central and eastern U.S. Rainfall helped improve drought conditions in the central U.S. with overall drought coverage falling from around 47 percent to 44 percent by the end of March. However, drought conditions continued to get worse in some areas of the northern Plains and parts of Texas. The Southeast dealt with severe weather resulting in flooding early in March across Kentucky and central Tennessee. In addition, the area experienced a reported 175 tornadoes, the highest number in March since 2012 when 225 occurred.

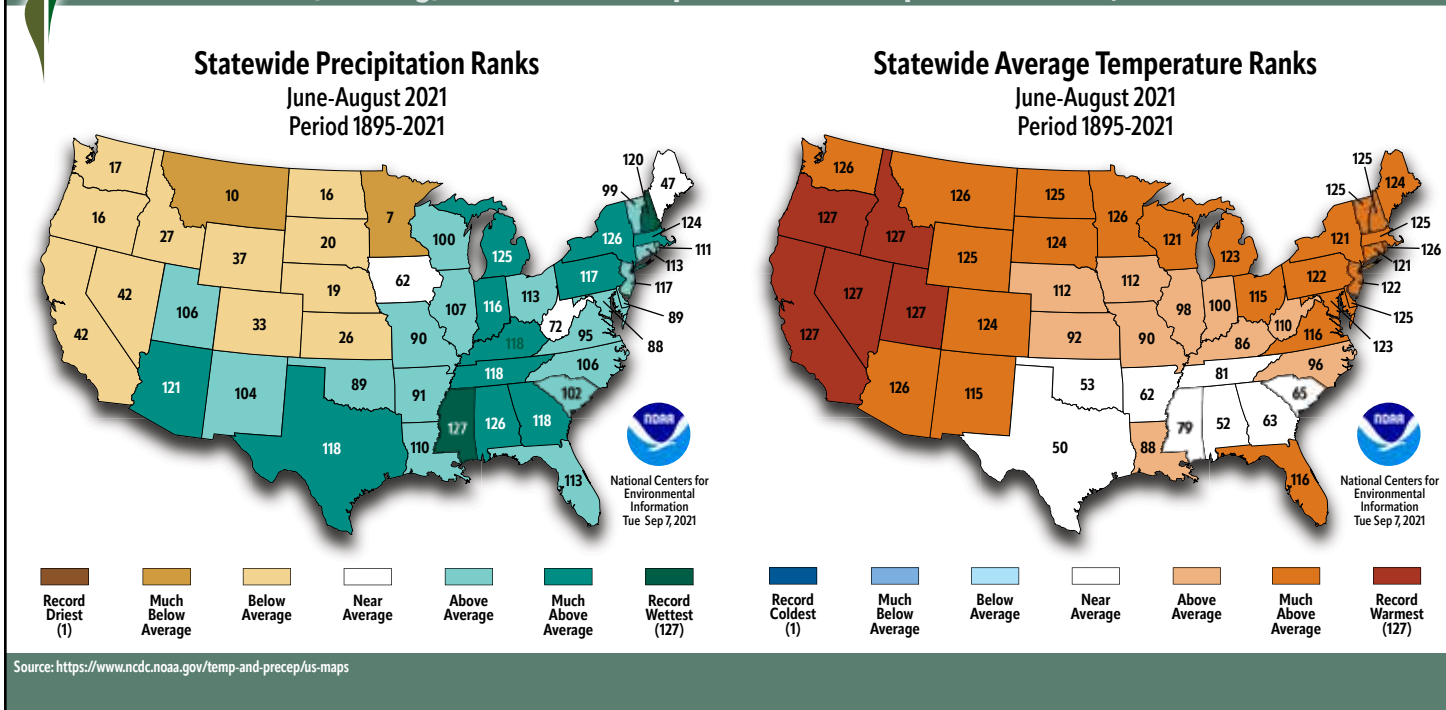
The weather in April, while less severe than March, had some surprises. A pair of cold snaps raised concerns for some crops. In the Southeast, freeze had negative impacts for fruits and ornamentals and, later in April, widespread freeze raised possible problems for winter wheat in the Plains, Midwest, and parts of the mid-South. The cold weather helped keep temperatures at or near below-normal levels for the month. At the same



¹ The 2020 derecho was a progressive derecho, while a third type derecho, a hybrid, has not yet been observed since the Southern Great Lakes derecho of 1998. To read a bit more: https://khak.com/december-15-iowa-storms-were-serial-derecho-different-from-2020/?utm_source=tsmclip&utm_medium=referral; <https://www.spc.noaa.gov/misc/AbtDerechos/casepages/may30-311998page.htm>

Figure 3

Summer 2021 (Jun-Aug): Statewide Precipitation and Temperature Ranks, 1895-2021



time drought continued to persist in the western part of the country. During April drought conditions in the 11-state region increased from 74 to 85 percent, with 43 percent of the area experiencing extreme to exceptional drought (D3 to D4).

Rains in May helped provide some relief to the lingering drought, at least across the central and southern Plains. However, the wet conditions dampened the pace of winter wheat harvest. The impact of the rain was limited in the northern Plains and the Northwest, resulting in a poor start to the growing season for crops such as spring wheat and barley. In addition, much of the rangeland and pasture continued to be poor to very poor condition in a wide area including North Dakota (67 percent) and Montana (56 percent), along with six western states – Arizona, California, New Mexico, Oregon, Utah, and Washington (from 50 to 88 percent).

By the end of spring above average precipitation was recorded in the Midwest and Colorado. Storms brought torrential rainfall to southwest Louisiana, with more than 12 inches falling in Lake Charles, which was still recovering from last year's hurricanes Laura and Delta. This resulted in much above average precipitation for the season (Figure 2). Meanwhile spring temperatures remained mostly above average to much above average across the United States. The southwest states, Louisiana, and Florida recorded much above average temperatures during the spring

and near average temperatures were recorded across the upper Plains, the Midwest and into Tennessee, Kentucky, Ohio, and West Virginia.

Summer 2021

A major story over the summer was continued drought conditions in the Pacific Coast States extending to parts of the Upper Midwest that resulted in severe stress to pasture, rangeland, and rain-fed crops. For example, as of August 29, over half of the rangeland and pastures were rated poor to very poor in every state along and northwest of a line from California to Minnesota. Meanwhile small grains (wheat, spring wheat, and barley) suffered from the drought as did corn and soybeans in Minnesota and the Dakotas. Drought conditions also contributed to another devastating series of wildfires in the West, particularly in northern region of California. Four of the fires in northern California scorched approximately 1.6 million acres. Later season monsoon rainfall help relieve dry conditions in the Southwest and dampen wildfire impacts.

In contrast, mostly favorable growing conditions were experienced in the South, with plentiful rainfall and relatively cool temperatures (Figure 3). However, tropical storm activity in the region resulted in problems associated with excess precipitation throughout the summer. In June, tropical storm Claudette made landfall in

Louisiana, while tropical storm Danny crossed the coast of South Carolina. In July, Hurricane Elsa made landfall in Florida followed by tropical storm Fred in mid-August. And, in late August, tropical storm Henri struck Rhode Island. At end of August, summer concluded with Category 4 Hurricane Ida, making landfall in southeastern Louisiana.

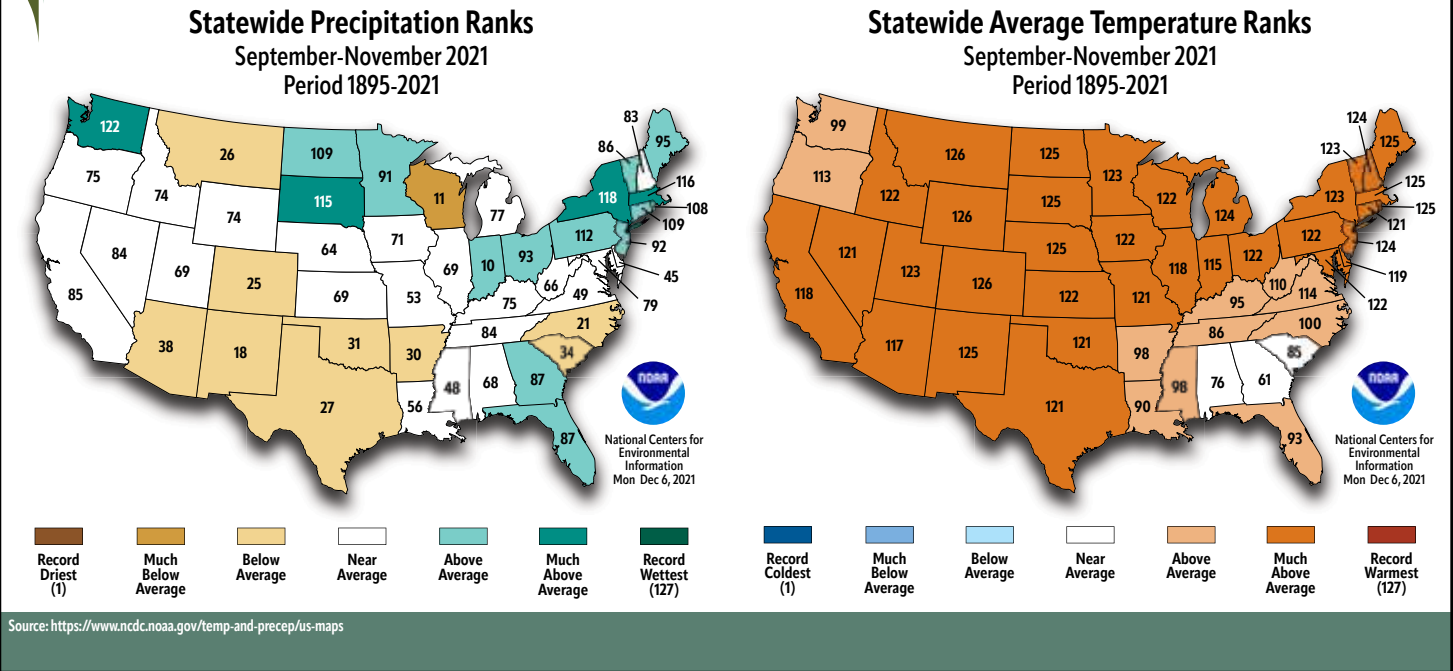
The abundance of rainfall extended into the Midwest mostly impacting the middle and eastern Corn Belt. The high humidity, coupled with warmer than normal nights, resulted in some disease issues in the fields. The rainfall did not arrive early enough to the northern Plains and upper Midwest to benefit the drought stressed small grains crops. Overall, the National Centers for Environmental Information reported that the United States experienced the hottest summer during its 127-year history of record keeping. The hot summer was accompanied by the eighth wettest on record, and since the mid-20th century only three others had been wetter—1992, 1993, and 2004.

Fall 2021

Autumn began with a continuation of a tropical storm season in September and October, followed by a predominantly dry and warm November (Figure 4). The tropical storm activity was most disruptive in the middle Atlantic States

Figure 4

Fall 2021 (Sept-Nov): Statewide Precipitation and Temperature Ranks, 1895-2021



and along the Gulf Coast. The remains of Hurricane Ida pounded the mid-Atlantic States with heavy rainfall and dozens of isolated tornadoes. In the middle of September, Hurricane Nicholas, a Category 1 storm, struck the Matagorda Peninsula in Texas producing high winds and heavy rainfall that drifted across to Louisiana before dissipating.

However, abundant to excessive moisture conditions did not extend to the northern Plains or most of the West. Some relief came in late October as multiple storms provided much needed

rainfall and higher-elevation snow in northern California and into the northern Plains.

Dryness and higher temperatures prevailed in November resulting in the end of fall being the seventh warmest and eighth driest on record. Only Washington and Florida reported above average precipitation for the month, while below average temperatures were confined to the middle and lower Mississippi Valley along with the middle and southern Atlantic States. Overall, despite early season regionally heavy precipitation the fall of 2021 saw the majority of the United

States reporting below or near average moisture and all but three states—Alabama, Georgia, and South Carolina—recording above average temperatures.

[The information sources for this section were: National Agricultural Statistics Service, ISSN: 1057-7823, Crop Production 2021 Summary, January 2022; <https://downloads.usda.library.cornell.edu/usda-esmis/files/k3569432s/w3764081j/5712n018r/cropan21.pdf> an Weekly Weather and Crop Bulletins, USDA, WAOB; <https://usda.library.cornell.edu/concern/publications/cj82k728n>]

Table 1

Crop Yields and Production

Crop	2020 Yield	2021 Yield	2020 Production	2021 Production	% CHANGE IN Production
	Bu./Harv. Ac.	Bu./Harv. Ac.	Mill. Bu.	Mill. Bu.	
Corn	172.0	177.0	14,182	15,115	6.6
Barley	77.5	60.4	165	118	-28.5
Grain Sorghum	73.2	69.0	373	448	20.1
Soybeans	50.2	51.4	4,135	4,440	7.4
All Wheat	49.7	44.3	1,825	1,646	-9.8
Winter Wheat	50.9	50.2	1,171	1,278	9.1
Other Spring Wheat	48.6	32.6	585	331	-43.4
Durum	41.4	24.3	68.8	37.3	-45.8
	Lbs./Harv. Ac.	Lbs./Harv. Ac.	1,000 Bales	1,000 Bales	
Upland Cotton	813	841	14,401	17,257	19.8
	Lbs./Harv. Ac.	Lbs./Harv. Ac.	1,000 Cwt.	1,000 Cwt.	
Rice	7,619	7,709	227,583	191,796	-15.7

Source: NASS Crop Production Annual Summary, January 2022

Crop Production Summary

Weather-wise 2021 was another turbulent year with a mix of hurricanes, tropical storms, severe rains, tornados, and wildfires in the West, which was exacerbated by continued dry conditions. Absent local and regional impacts overall the production of major crops flourished. In contrast, barley and spring and durum wheat production plummeted as drought conditions plagued crop yields while rice production fell as acreage was diverted in some areas in response to higher corn and soybean prices. Excessive rainfall in the Delta also resulted in substantial prevented planting (Table 1).

Coarse Grains and Soybeans

A minor increase in area, just over two percent, combined with a record yield of 177 bushels per acre, up three percent from the previous year, resulted in a 6.6 percent increase in corn production in 2021 of 15.1 billion bushels. Favorable prices relative to competing crops resulted in a surge in grain sorghum production in 2021. A decline of around six percent in yields were more than offset by a 24 percent increase in planted area, which resulted in production of 448 million bushels, 20 percent above the 2020 total. Soybeans continued to attract farmers who increased planted acres by around five percent from 2020 to 87.2 million acres. Combined with slightly higher yields, soybean production reached 4.4 billion bushels, up over seven percent from 2020 commensurate with the increase in acreage.

Wheat

In total, production of all wheat in the United States was down almost 10 percent, 1.65 billion bushels, from the 2020 total of 1.83 billion bushels. The decline in all wheat production numbers mask the influence of changes in production by wheat class. Significantly difficult conditions in the other spring and Durum wheat production areas weighed down all wheat production in 2021.

Winter wheat production registered an increase in production of just over nine percent above the previous year. Larger planted area, 33.6 million acres, up 10 percent from the previous year, overcame a slight decline in yields to boost winter wheat production to 1.28 billion bushels, up from 1.17 billion bushels in 2020. Acres devoted to winter wheat increased by 11 percent in 2021 to 33.6 million acres, from 30.5 in 2020. Among winter wheat, Hard Red Winter production increased by 14 percent from the previous year reaching 749 million bushels. Soft Red Winter fared even better with production increasing to 361 million bushels, up 35 percent from 2020. However, White Winter production fell by 34 percent from 2020 for a total of 167 million bushels primarily resulting from lower yields because of challenging drought conditions in the Pacific Northwest. The recent five-year average production was 217 million bushels.

Other Spring Wheat production suffered its worst season since 1988 as severe drought resulted in yield declines of 16 percent, to 32.6 bushels per acre off from record yields in 2020 of 48.6 bushels per acre. Combined with a decline in harvested acres the total production of Other

Spring Wheat was down to 331 million bushels, almost 44 percent from the 2020 total of 585 million bushels. The fate of the Durum Wheat season was even worse. Primarily grown in North Dakota and Montana, Durum is the smallest in size of the three major wheat classifications, accounting for two to five percent of U.S. wheat production. In 2021, Durum wheat production fell by almost 46 percent, linked to a small reduction in acreage and a drought related collapse in yields. Durum Wheat yields fell to 24.3 bushels per acre, down over 17 bushels per acre (41 percent) from the 2020 yield of 41.4 bushels per acre.

Upland Cotton

A slight increase in average yield, combined with a substantial increase in harvested acres, resulted in production of Upland cotton in the United States of almost 17.3 million 480-pound bales in 2021, up almost 20 percent from the previous year. While regional production varied considerably across the Cotton Belt, generally favorable conditions allowed harvested acres to increase by 22 percent from the previous year with an overall abandonment rate of 11 percent in 2021 versus 32 percent in 2020. The Southwest region produces almost 50 percent of U.S. Upland cotton with nearly 90 percent grown in Texas. In the Southwest, timely rains contributed to a successful dry-land crop, reducing abandonment from over 49 percent last year to 17 percent in 2021 boosting total regional production by more than 50 percent. In contrast the Upland crop in the West was the lowest in 80 years, just 477,000 bales, as drought conditions and other cropping alternatives continued to erode cotton planted area, down 8,000 acres in California in 2021 following a 20,000 acre decline in 2020. A similar trend was observed in New Mexico; however, improved yields and a modest increase in planted acres resulted in a slight increase in production of 320,000 bales in 2021, up six percent from the previous year.

In the Delta, cotton production was down about four percent from the previous year, at 3.9 million bales, but similar to the 10-year average. The decline in production was moderated by record yields, 1,187 pounds per harvested acre which offset the decline in planted acres to 1.6 million, the smallest since 2016. In the Southeast, the season was similar to the Delta with 2021 cotton production of 4.5

million bales, up 15 percent from 2020 but near the average production for the region from 2016–20. As with the Delta higher yields more than offset lower planted area. Cotton area in 2021 was at its lowest in five years, with harvested area estimated about 2.3 million acres. However, the Southeast yield was 933 pounds per harvested acre in 2021, the second highest on record behind 2012 with 1,033 pounds.

Rice

Rice production in 2021 was down in all states across all types except for a slight increase in Missouri. In 2021 all rice production totaled about 192 million cwt, down almost 16 percent from 2020. Planted areas for 2021 was estimated at 2.53 million acres, down 17 percent from 2020 and area harvested, at 2.49 million acres, was down 17 percent from the previous crop year. The decline in rice production in 2021 was mitigated somewhat by a record yield of 7,709 pounds per acre, up modestly from the previous year's yield of 7,619 pounds per acre.

In the South, long-grain production was hampered by excessive spring rainfall that prevented or delayed planting, along with higher prices for competing crops attracting acres away from rice. In Mississippi for example, harvested area was down 39 percent from last year, the smallest area harvested since the 1973/74 season. In contrast, California's harvested area declined to its lowest level since 1992/93 at 405,000 acres, 21 percent below the previous year as severe drought and related low water supplies continued to plague the state.

Dry Beans and Lentils

Drought conditions in major production regions resulted in reduced yields and quality issues for the 2021 crop of dry edible beans. Production total was 22.7 million cwt., down 30 percent from the previous year's 32.7 million cwt. crop. Production declines were partially attributable to a decline in planted acres, falling to 1.39 million, down 19 percent from 2020. In addition, a decline in average yield, 1,701 pounds per acre in 2021, 13 percent below the previous year also contributed to the fall in production of dry edible beans in 2021. In addition to reducing the level of production there were reports of some cracking in dry beans that resulted in their use in animal feed rather than the more lucrative commercial market. In contrast, the upper peninsula of Michigan reported a banner season

for their navy and black bean production recording record yields of 2,700 and 2,480 pounds per acre respectively.

Drought conditions wreaked havoc in U.S. lentil production in 2021 with yields down 47 percent from the previous year. Increased acres, up almost 35 percent from the previous year, failed to offset yield declines resulting in 2021 lentil production of 5.09 million cwt, down over 31 percent from 2020.

Hay

Drought conditions weighed on dry hay production across almost all producing states resulting in declines in both area harvested and yields in 2021. All dry hay production was 120.1 million tons in 2021, down five percent from the previous year. The declining numbers were the result of a combination of a lower area harvested, 50.7 million acres, down five percent from 2020 and a lower average yield of 2.37 tons per acre, down 2.5 percent over the same period. On an individual state-by-state basis, production remained variable, with record yields experienced in California, Georgia, and Nevada contrasted with record low harvested acres in Connecticut, Delaware, Minnesota, North Dakota, Oregon, Vermont, and Wisconsin.

By category, alfalfa and alfalfa mixtures account for about 41 percent of total dry hay production, declining across all metrics in 2021 with production down seven percent, harvested area down six percent and average yield down just over one percent from 2020. All other hay production, 71.0 million tons or 51 percent of the total, also declined across the board with production down four percent from 2020 in combination with a one percent reduction in harvested acres and a reduction in average yield of about 2.4 percent.

Fresh Produce and Vegetables²

In 2021 there was decline of four percent in total production from the previous year of the 26 vegetable and melon markets tracked by USDA. The decline in production was linked to falling yields due to extreme heat combined with reductions in planted acreage due to a lack of an adequate supply of water for irrigation.

The largest crops in terms of total production

among the 679 million hundred weight produced in 2021 were tomatoes, onions, and sweet corn accounting for 53 percent of the total. Individually some crops did better than others in 2021. For example, tomatoes and sweet corn had modest increases in production while onion production was down 8.3 percent from the previous year. Other vegetables that were particularly stressed in 2021 included spinach, down 13.8 percent; broccoli, down 12.6 percent; cauliflower, down 11.7 percent; and all lettuce down 11.3 percent. In terms of value of production, tomatoes, Romaine lettuce, and onions accounted for 28 percent of the total \$12.7 billion value, a 10 percent decline in total value from 2020. The utilized production for 2021, a proxy for consumption, was estimated at 675 million cwt, also down four percent from the previous year. The lingering impact of the pandemic-era on demand dampened prices, despite the decline in available domestic supplies. For example, the index of prices received by vegetable growers in 2021 fell by six percent from last year with lower prices for 11 of the 12 vegetables in the monthly price index. The decline in the vegetable prices received index was the largest year-to-year fall since 2012.³

The road to recovery will likely be a volatile one, as continued drought and extreme heat, along with a recovering food service industry demand already has resulted in a 22 percent increase in the vegetable producers' prices received index during the first quarter of 2022. The impact of the current geopolitical issues will influence input and transportation costs for some time to come.

Citrus

The 2021 Citrus season was not good with declines in all citrus commodities except for California tangerines. A variety of factors contributed to the decline in production. For example, grapefruit production was down 46 percent from last year due in large part to Texas winter storm Uri in mid-February. In California, continued drought in the San Joaquin Valley contributed to a 17 percent decline in grapefruit production from the previous year. While in Florida lower grapefruit production volumes were linked to decline in bearing acres attributed to continuing problems with citrus greening disease.

Overall total utilized production of citrus was 6.9 million tons, 12 percent below last year. California continued as the major citrus producing state accounting for 60 percent of total U.S. production. Florida, the second largest citrus producer, accounted for 28 percent total production with production in Texas and Arizona contributing the remaining two percent.

Utilized citrus production in California was down three percent from the previous year. However, it was limited to orange production of 50.1 million boxes, down seven percent from last year and the decline in grapefruit production described above. In contrast, domestic tangerine and mandarin production increased from last year, reaching its second highest level in 50 years at 788,000 tons, largely due to the 25 percent increase of production in California. A long growing season with increased yield, up over 23 percent from last year, and additional 1.5 percent increase in bearing acres coming on board, contributed to the California 2021 production increase.

Florida orange production of 52.8 million boxes in 2021 was down 22 percent from the previous year. Continued decline in bearing acres and lower yields contributed to the reduction in orange production. Florida tangerine and mandarin production was down 13 percent from the previous year also attributable to a decline in bearing acres and lower yields. Florida overall citrus production is constrained by their large number of older, less productive trees and disease issues.

Production of the other major citrus crop, lemons, is concentrated in California, accounting for 96 percent of 2021 domestic production of 22.1 million boxes. Arizona accounted for the remaining four percent with 800,000 boxes produced in 2021. In both states, while bearing acres remained constant from the previous year, yields fell significantly, down 16 percent in California and 55 percent in Arizona. The large decline in Arizona production is linked to higher fruit drop attributed to the near-record high spring temperatures in the major production region of the Yuma Valley.

[Information sources for this section include USDA NASS 2021 Production Summaries: Crops, January 2022; 2021 Citrus Fruits, September 2021; Vegetables, February 2022. and USDA, ERS, Vegetable and Pulses Outlook: April 2022, VGS-368; USDA, ERS, Fruit and Tree Nuts Outlook: September 2021, FTS-373.]

² Beginning with the 2021 Vegetables Summary, USDA will no longer provide a summary of the 26 major crop statistics totals by state. Statistics for the 26 individual products by state are available by accessing <https://quickstats.nass.usda.gov/>.

³ Vegetables and Pulses Outlook, USDA, ERS, VGS-368, April 29, 2022, pg. 2. <https://www.ers.usda.gov/webdocs/outlooks/103821/vgs-368.pdf?v=6015.8>

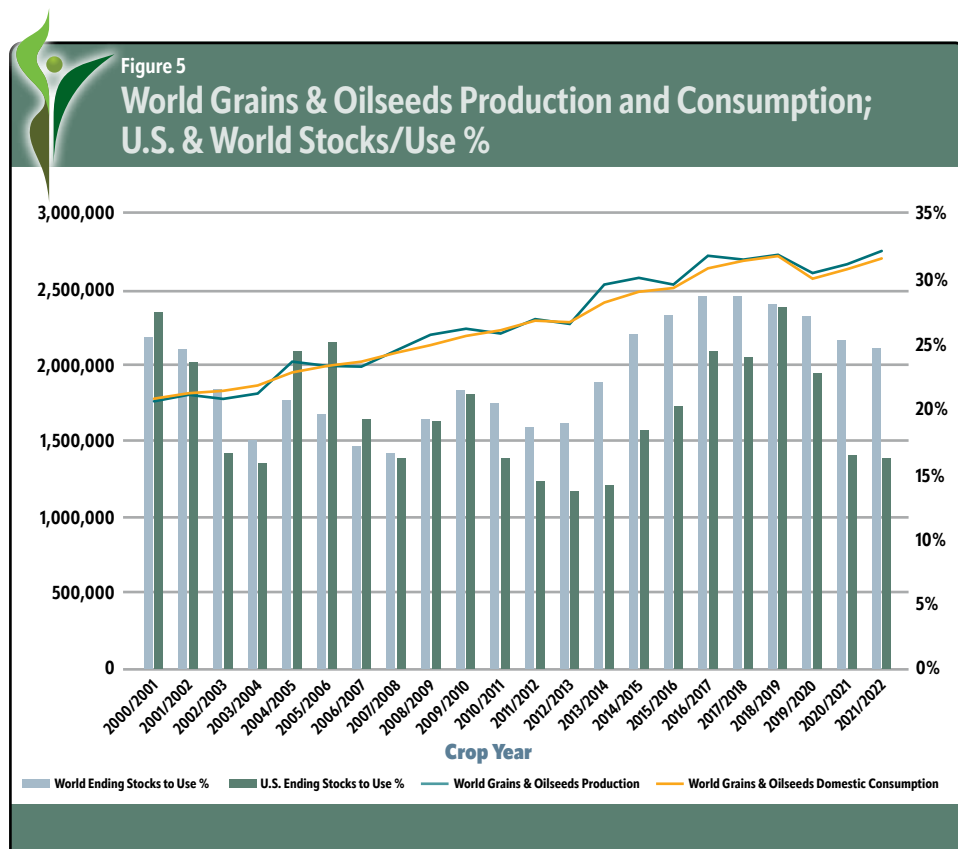
Commodity Market Developments

Global grains and oilseeds production remain in a relatively balanced position. World production increased by three percent in 2021 while consumption increased by only two percent.⁴ Despite the modest global surplus production, reductions in total supply in 2021 linked to lower beginning stocks were sufficient to contribute to a fourth year of decline in world ending stocks-to-use ratio, albeit only by one percent (Figure 5).

A comparison between the United States and the rest of world reveals somewhat different patterns contributed to the combined draw down in global ending stocks-to-use. In the United States, 2021 domestic oilseed ending stocks-to-use experienced a slight increase, less than one percent, as increased domestic use failed to completely offset increased production, following rapid declines in 2019 and 2020. In contrast, U. S. domestic grains total stocks-to-use also declined less than one percent as increased production was offset by increased domestic consumption. Worldwide, a reduction in foreign oilseed production in 2021, combined with an increase in total use, resulted in a decline in foreign ending stocks-to-use of 2.7 percent from the previous year. Global grains ending stocks-to-use fell by less than one percent in 2021 as increased production and stable consumption failed to offset reductions in beginning stocks from the previous year.

Wheat

Global wheat production in 2021 represented just over 34 percent of total grains production. Global wheat production in 2021 increased by less than one percent from 2020. The overall increase in wheat production masks the variability in individual commodity markets. In the United States, for example, domestic wheat production declined by almost 10 percent from 2020. In contrast, production of wheat in the European Union increased by more than nine percent from the previous year. Other countries with larger crops in 2021 included the United Kingdom, Morocco, Argentina, and the Ukraine. Notable declines in 2021 wheat production from the previous year were also reported in Russia, Canada, and Kazakhstan.



Increased wheat production in 2021 was primarily a reflection of increased harvested area and yields. For example, in the European Union an increase in acreage of over five percent combined with an increase in yields of around four percent accounted for their increased production. Australian wheat production increased over nine percent with increased yields of more than eight percent on a harvested area that increased less than one percent. At the same time India managed to increase production less than two percent as a 2.3 percent increase in yields offset a decline in harvested area of less than one percent.

Of special interest, 2021 was a record year for the Ukraine as production increased by almost 30 percent resulting from a major boost in yields, up over 20 percent from 2020, combined with an increase in area harvested of over eight percent. The increase in output from the Ukraine resulted in increased exports to markets like Egypt and Turkey and more recently Pakistan, in competition with Russian wheat exports in the region. These positive steps for the Ukraine wheat industry will likely contrast significantly from what we see in the coming year due to problems associated with recent events for the country and those they supply.

The decline in wheat production in other producing countries was most pronounced in Canada and Kazakhstan. In Canada dry and hot conditions during June and July resulted in a fall in yields of over 33 percent, combined with a decline in harvested area of almost eight percent wheat production declined by over 38 percent, down 33 percent from the five-year average. In 2021 Kazakhstan wheat production fell over 17 percent from the previous year due to similarly bad growing conditions categorized by drought and high temperatures. Kazakhstan yields fell by over 21 percent as harvest area also declined by more than five percent.

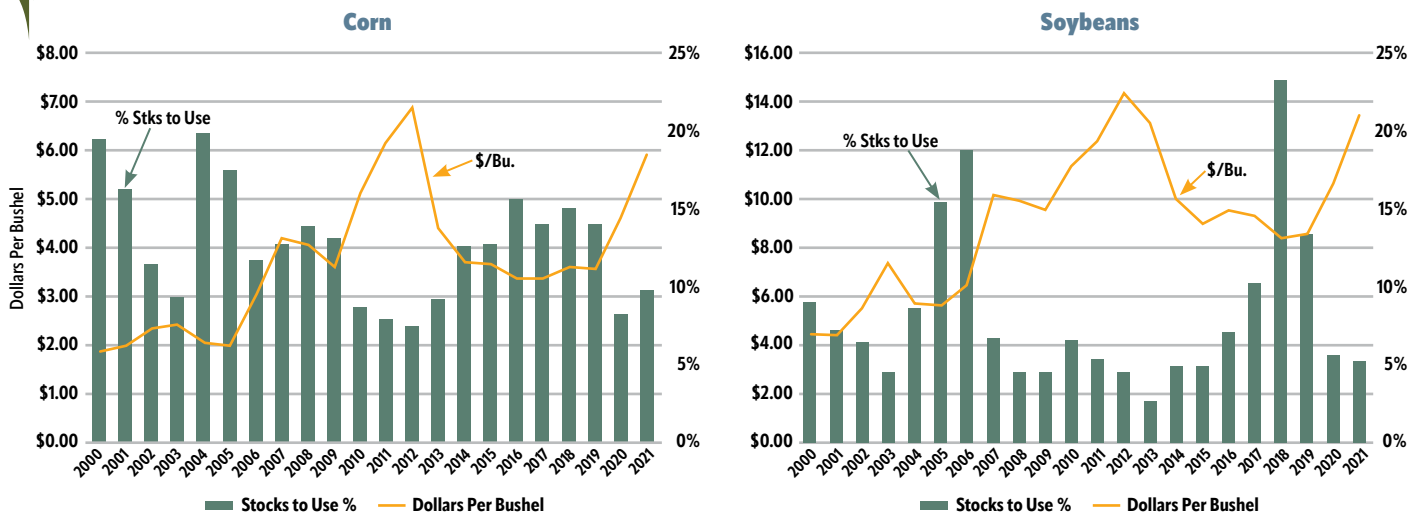
Overall global consumption of wheat is reported as the measure of the volume of crop used locally for animal feed and FSI consumption, that part of the crop used for food, seed, and industrial uses. In 2021 the volume of wheat used for animal feed globally increased by a little under two percent from 2020 while FSI use increased a bit less at 1.6 percent. As a result, global stock levels declined by around four percent in 2021 from the previous year. Increased feed use reflects larger supplies in the EU and other areas along with competing relative feed component prices, increased FSI consumption is tied to rising populations in many parts of the world and a rebound in economic growth. In addition, changing diets in areas such as South Asia and China are increas-

⁴ Global oilseeds include Copra, Cottonseed, Palm Kernel, Peanut, Rapeseed, Soybeans and Sunflower seeds. Global grains include barley, corn, millet, mixed grains, oats, rye, sorghum, and wheat. U.S. grains exclude millet and mixed grains. Wheat and corn comprise around 87 percent of global grains, while soybeans account for almost 60 percent of global oilseeds. Accordingly, additional detail is provided for these three crops.



Figure 6

U.S. Prices and Ending Stocks as a % of Total Use, 2000-2021



Source: World Agricultural supply and Demand Estimates
<https://www.usda.gov/oce/commodity/wasde/wasde0321.pdf>

ing the demand for both milling quality wheat and wheat for feed. As many countries have a limited ability to increase wheat production the demand for imports of wheat is also expected to increase.

Corn

Global corn production accounted for over 80 percent of total coarse grain production in 2021. World production increased for the third year in a row, up by almost eight percent from the previous year, growing from 1.129 trillion metric tons in 2020 to 1.216 trillion metric tons in 2021. A combination of increased area harvested, up over 3.5 percent from 2020, along with an increase in average yield to 5.89 metric tons per hectare, up almost four percent, contributed to the rise in 2021 global production. Total corn consumption increased in all countries, increasing almost five percent, from 1.143 trillion metric tons in 2020 to 1.199 in 2021. After accounting for trade between countries, which declined by about 2.5 percent, global ending stocks increased to 309.39 million metric tons from the previous year when ending stocks were at their lowest level since 2014, with notable increases by China and Mexico.

The United States was the largest producer of corn in 2021 accounting for almost 32 percent of total global production, about the same level as the previous year. Following the United States, China accounted for over 22 percent of global corn production in 2021, down less than

one percent from 2020. Corn production in the United States increased by more than seven percent from 2020 while corn production in China increased by 4.6 percent year-to-year. Of the major corn producing countries group reported by FAS/USDA Global Market Analysis only India, Pakistan, and South Africa experienced a decline in corn production from the previous year.

Corn production in China is almost exclusively reserved for domestic feed use, accordingly it is useful to examine the importance of corn production in exporting countries relative to global supply less Chinese production. Using this metric, the importance of major exporting countries to available global corn supply is revealed. Global corn production outside of China increased by almost nine percent in 2021 above the previous year. In 2021 United States corn production accounted for over 41 percent of available supply less China's production. Five major exporting countries accounted for over 23 percent of available supply less China. Among the major exporter group, Brazil accounted for about 44 percent of the group's corn production, Argentina followed with 26 percent, and the Ukraine with over 15 percent. South Africa and Russia accounted for the remainder of 2021 production in the major exporter group accounting for eight and seven percent respectively.

In the United States, corn production in 2021 reached 15,115 million bushels, up from 14,111 million bushel in the previous year. The increase in production was linked to a 3.7 percent increase

in harvested acres, 85.4 million acres versus 82.3 million acres in 2020 along with a 3.3 percent increase in average yield, increasing from 171.4 bushels per acre in 2020 to 177 bushels per acre in 2021. However, corn total use in 2021 failed to match the increase in total supply resulting in an increase in ending stocks of 205 million bushels from 2020 to 1,440 million bushels, up over 16 percent from the previous year.

The increase in ending stocks follows the rapid decline in the previous year when ending stock levels fell by over 35 percent. Lower corn exports in 2021, due in part to a weakening in demand from China relative to 2020 along with increased competition from other suppliers, contributed the buildup in ending stocks. As a result, the corn ending stocks to total use increased to 9.6 percent in 2021 up from 8.3 percent in 2020 (Figure 6). At the same time the season average price for corn remained strong attributable to return to growing ethanol use, early season concerns over drought conditions in the Southern Hemisphere, and concerns over non-fundamental factors such as supply-chain issues and buyer concerns over the possibility of renewed global inflation. The most recent USDA season average price estimate for corn at this writing was \$5.90, if that holds it would be the highest since 2012. Given a lack of confidence in an eminent conclusion to the existing conflict between Russia and the Ukraine, it is likely corn prices will remain strong for some time.

Soybeans

Global soybean production in 2021 declined by just over five percent, declining from 368.12 million metric tons in 2020 to 349.37 in 2021. The decline is attributable to a decline in production in major exporting countries, falling by 12 percent from 2020. Severe drought in the Southern Hemisphere, particularly southern Brazil, Paraguay, and Argentina, which account for around 53 percent of world production, took its toll on soybean production in 2021. Reduced output in Brazil in 2021 was largely responsible for the fall in world output, down over 10 percent from the previous year, falling from 139.5 million metric tons to 120.71 million tons. Production in Paraguay declined by over half, falling by more than 57 percent, from 9.9 million metric tons in 2020 to 4.2 million metric tons in 2021. Production shortfall in Argentina also added to the decline, down 4.2 million metric tons in 2021, over nine percent below production in 2020. In contrast, record soybean production was reported in the United States. Marginally higher yields and more than four percent more harvested acres resulted in an increase of around five percent from the previous year, growing from 114.75 million metric tons in 2020 to 120.71 in 2021, accounting for 34.5 percent of global soybean production in 2021.

Global soybean domestic use was virtually unchanged in 2021, declining slightly by 901 million metric tons, less than one percent from the previous year. Slight increases in food and feed use, up by 502 million metric tons, just over one percent from the previous year, were offset by a

decrease in crush, declining 1,403 million metric tons, about 0.5 percent from 2020. The reduction in crush was primarily linked to a cutback in soybean crush activity in China, with a decrease of 4,000 million metric tons in 2021, down 4.3 percent from the previous year. The reduction in China crush volume, especially in the fourth quarter was reported to be linked to widespread electrical outages hampering soybean crush. The impact of the reduction in Chinese soybean crush on global soybean use was dampened by an increase in crush in the United States, increasing by 2,205 million metric tons in 2021, a 3.5 percent increase from 2020. In addition, an increase in domestic feed use of 400 million metric tons in 2021 helped cushion the blow from a decrease in use in China.

The cutback in use of soybeans by China had a negative effect on the United States exports of soybeans. In 2021 the United States exports of soybeans fell by 3.28 million metric tons, down 5.3 percent from the previous year, primarily through declining shipments to China following the slowdown in demand. Despite the reduction in exports, prices remain strong in part due to cross price effects from strong corn prices and lingering market effects of record exports in 2020 as China trade resumed and the swine herd continued to recover from outbreaks of African swine fever. By the end of 2021 increased domestic use had outpaced the fall in exports, along with a heavily depleted beginning inventory, down 51 percent from the previous year, ending stocks declined 8.5 percent from 2020. Combined with larger total use the United States

ending stocks-to-use ratio declined for the third year in a row, falling to 5.25 percent from 5.7 percent in 2020 providing further support for a bullish price outlook. At the close of the year the marketing year average price increased by almost 23 percent, reaching \$13.25 per bushel, up from \$10.80 in the previous year. Continued low level of ending stocks-to-use and expectations of a recovery in the Chinese market coupled with concerns over uncertain climatic conditions in the Southern Hemisphere provide support for a continuation of strong prices in the coming year.

Prices Received and Prices Paid

Strong commodity market prices are a cause for optimism in the outlook for the overall farm economy, however a continued rise in input prices overshadows that outlook. Rapidly increasing prices paid by farmers and ranchers offset the potential gains from improved prices received for crops and livestock. A continuing challenge facing United States producers is illustrated in the overall index of prices paid for inputs and prices received for crops and livestock (Figure 7). In the case of crops, while commodity prices move up and down, input prices trend steadily upward. For livestock producers feed and related input costs vary with the price of crops like corn and soybeans, but while they have fallen from the high levels in 2013 a renewed upward trend began in 2019, and given the near-term outlook, will likely continue. Livestock related prices, however, have persistently failed to keep pace with input prices since 2016.

Improved prices for crops are reflected in

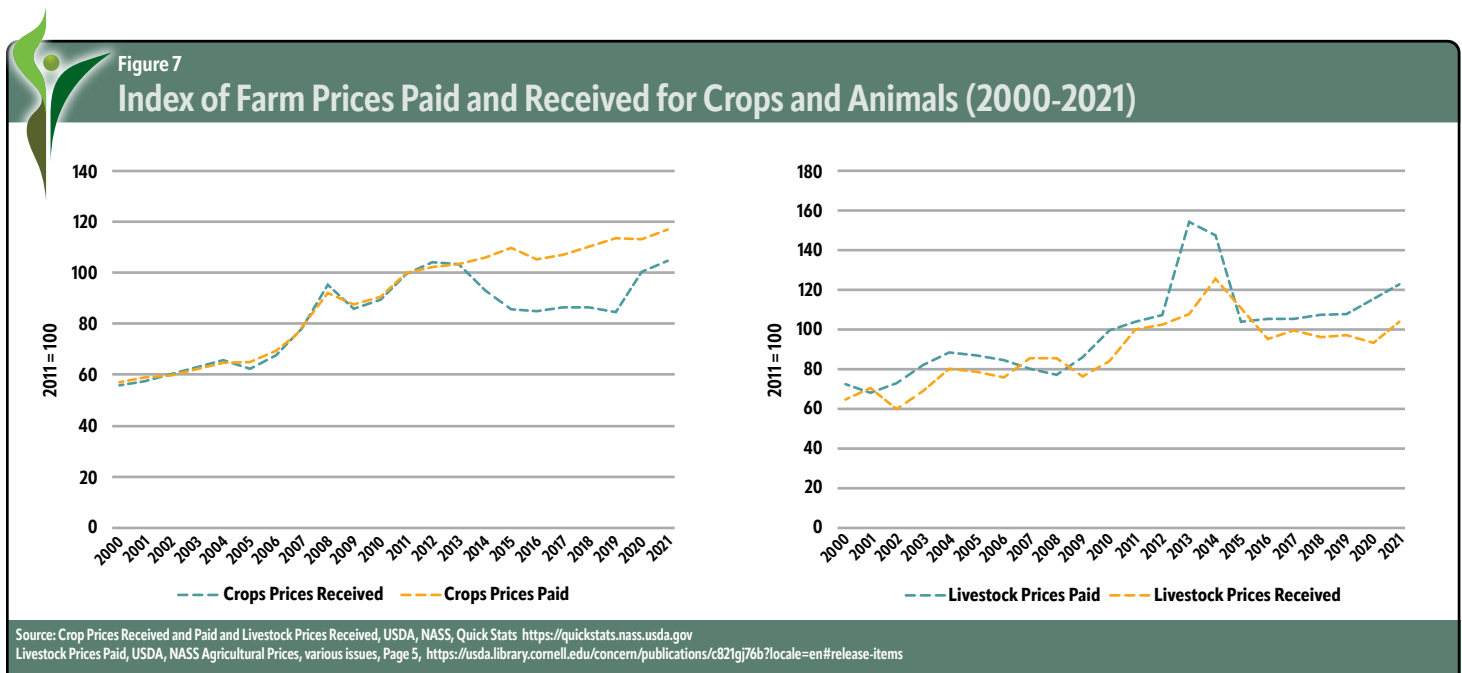




Table 2

Insured Acres by Major Crop¹

Crop	2019	2020	2021	CHANGE 2020/21	% CHANGE 2020/21
Wheat	38,735	36,197	36,623	427	1.2
Corn	86,958	84,348	83,064	-1,284	-1.5
Sorghum	4,067	4,482	5,939	1,457	32.5
Soybeans	71,443	75,664	78,878	3,214	4.2
Upland Cotton	13,110	11,756	10,775	-981	-8.3
Pasture, Range & Forage	140,075	159,779	202,377	42,598	26.7
Total (Above Crops)	345,388	372,225	417,655	45,430	12.2
Total (All Crops)	378,736	399,615	445,882	46,268	11.6
NASS Planted Acres (Field Crops)	303,073	310,114	317,163	7,049	2.3

¹Data as of April 21, 2022. In (000) acres.
Source: RMA Summary of Business, NASS Quick Stats

the increase in the prices received index, up 4.2 percent in 2021 from the previous year. At the same time, however, increases in crop production input costs are reflected in the 4.4 percent increase in the overall index in 2021 from the value in 2020. Accordingly, the gap between the two stayed virtually the same from the previous year. Major commodity prices were up across the board contributing to the increase in prices received index. For example, USDA, NASS average monthly all wheat price was up almost 41 percent in 2021 from the previous year. To put the prices received change in perspective, all wheat December 2021 price of \$8.58 was up over 57 percent from December 202 price of \$5.46. Similar patterns were evident for corn, up over 54 percent and soybeans, up over 45 percent from 2020. At the same time, prices paid for inputs were ramping up as well, for example by years end the December monthly 2021 index for fertilizer prices

was up 62 percent from the previous year and the fuel prices index was up 23 percent from the previous year.

In the case of livestock increasing product prices helped narrow the gap with increasing cost as the pace of prices received exceeded that of increases in prices paid from the previous year. The annual index of prices received for livestock increased by over 17 percent in 2021 from 2020 while the index of prices paid increased by only a little over six percent. The uptick in the price of inputs associated with livestock production is linked to increased commodity prices that make up livestock feed along with prices for animals being placed on feed. As an example, at the end of the calendar year, the December index of feed prices in 2021, 117.4 was up by more than 13 percent from 2020. This reflected the trend in higher prices being paid for complete feeds, feed grains, supplements, and concentrates. Over the year

prices for feeder and stockers cattle and calves increased from an average of \$138 per cwt in 2020 to \$147 in 2021, up over six percent. At the same time, feeder pig prices increased dramatically from an annual average of \$92.10 per cwt in 2020 to \$185 per cwt in 2021, more than double the previous year.

Given conditions in the input markets and the commodity markets at the time of this writing, the challenges posed by increasing prices for producers with concurrent increases in the costs of inputs will likely continue well into 2022 if not beyond.

[The information sources for this section were: USDA, Quick Stats <https://quickstats.nass.usda.gov>, USDA, OCE, WASDE, <http://usda.gov/oce/commodity/wasde> and USDA, FAS, Market and Trade Data, PSD Online, <https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>. USDA, NASS, Ag Prices various issues, <https://usda.library.cornell.edu/concern/publications/c821gj76b>]

Federal Crop Insurance Experience

In 2021, total insured acreage increased by 11.6 percent (Table 2). Pasture, Rangeland and Forage (PRF) continued to expand, increasing by almost 42 million acres in 2021, a 26.7 percent increase over 2020. Insured cotton acreage declined by 8.3 percent after a 10.3 percent decrease in 2019. Insured corn acreage continued its decline since 2019 with a modest 1.5 percent decline. Offsetting these declines were increases of 32.5 percent in insured sorghum acreage, a 4.2 percent increase in soybean acreage, and a 1.2 percent increase in wheat acres insured. With the increase in total acres insured and acreage shifts among the major crops, coverage levels for the U.S. also increased, as illustrated in Figure 8. More than 80 percent of U.S. insurable acres are protected at coverage levels exceeding 70 percent.

FCI underwriting performance is provided in Table 3. Indemnities for 2021 were approximately \$9 billion compared to \$8.4 billion in 2020. The loss ratio (indemnity divided by premium) was 66 percent for 2021, down from the 86 percent loss ratio in 2020 and considerably less than the 105 percent loss ratio experienced in 2019. Table 4 provides a breakdown of premiums and indemnities ranked by both state and crop for 2021. In terms of premium vol-



Figure 8

Share of Insured Acres Covered at 70% or Higher





Table 3

Federal Crop Insurance Program Performance, Gross Basis¹

Crop Year	Policies with Premium	Units with Premium	Liability	Premium	Farmer-Paid Premium	Indemnity	Gross Underwriting Gain	Insured Acres	Loss Ratio
	Thousands		Million Dollars				Million		
2012	1,174	2,529	117,160	11,117	4,138	17,451	-6,334	283	1.57
2013	1,224	2,584	123,811	11,808	4,511	12,085	-227	296	1.02
2014	1,207	2,539	109,904	10,073	3,858	9,136	938	295	0.91
2015	1,205	2,547	102,539	9,769	3,679	6,316	3,452	296	0.65
2016	1,160	2,442	100,623	9,329	3,462	3,913	5,416	290	0.42
2017	1,125	2,370	106,064	10,071	3,716	5,432	4,637	312	0.54
2018	1,108	2,330	110,163	9,896	3,630	7,323	2,573	335	0.74
2019	1,106	2,355	109,876	10,129	3,758	10,605	-476	379	1.05
2020	1,112	2,433	113,944	10,065	3,746	8,681	1,384	398	0.86
2021	1,167	2,632	136,628	13,714	5,109	9,022	4,692	445	0.66

¹Data as of April 21, 2022
Source: RMA Summary of Business, NASS Quick Stats

ume, Texas, North Dakota, Iowa, Illinois, and Kansas were the top-ranking states for 2021. With respect to indemnities, North Dakota, Texas, and Iowa were the top three ranking states. A surprise shift in the premium volume for top crops had cotton replacing wheat for the number three spot behind corn and soybeans in 2021. And respectively, corn, wheat, and soybean indemnities were \$1.8 billion, \$1.6 billion, and \$1.4 billion in 2021.

The U.S. Loss Ratio map in Figure 9 reveals the remarkable underwriting results in several of the major corn and soybean states. Specifically, the states of Iowa, Illinois, Indiana, Kansas, Missouri, Nebraska, Ohio, and Wisconsin all experienced loss ratios under 50 percent for the FCI program.

Contrast the experience of the Midwest with that of the Northwest region encompassing Washington, Idaho, and Montana, along with Massachusetts, that sustained loss ratios in excess of 200 percent. The primary cause of loss in these states was drought. The Southwest and Delta states, and California, North Dakota, Rhode Island, and Connecticut also experienced loss ratios in excess of 100 percent primarily due to drought or excess moisture and hurricanes.

Revenue Products

The projected base prices used to establish the value of a crop and the insured liability under the Revenue Protection and Yield Protection forms of insurance policies are

shown in Table 5 for crop years 2015 through 2022. Projected base prices are the average of futures prices during the discovery month, i.e., the month preceding the sales closing date for a policy.

The projected base prices rebounded for all commodities in 2021 after a decline in 2020 due to the overall downturn in the farm economy and trade implications with China.

Commodity prices were up slightly across the board for all commodities in 2021, including a 29 percent increase in the soybean base price and 17 percent increase in the spring wheat base price.

Implied volatility factors (IV) are derived from futures market information and serve as the measure of risk for expected harvest prices.



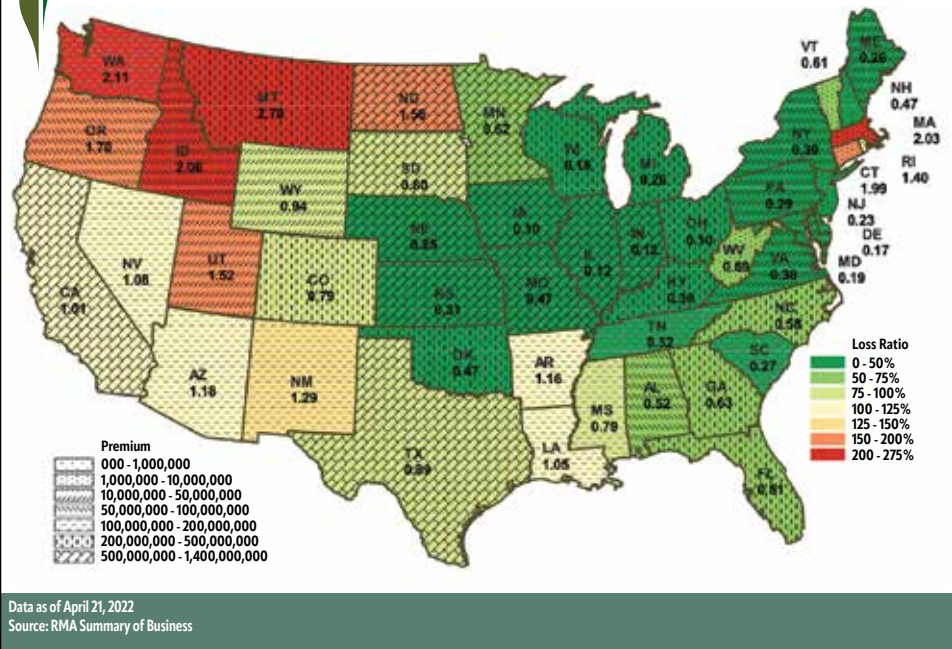
Table 4

Top 10 Premiums and Indemities Ranked by State and Crop for 2021

Rank	RANK BY STATE				RANK BY CROP			
	Premium		Indemnity		Premium		Indemnity	
	State	MIL.\$	State	MIL.\$	Crop	MIL.\$	Crop	MIL.\$
1	Texas	1,390.5	North Dakota	1,695.6	Corn	4,988.6	Corn	1,792.1
2	North Dakota	1,089.5	Texas	1,233.0	Soybeans	3,174.3	Wheat	1,647.0
3	Iowa	1,052.9	South Dakota	676.8	Cotton	1,115.9	Soybeans	1,375.6
4	Illinois	978.6	Montana	549.4	Wheat	1,051.5	PRF	977.3
5	Kansas	875.2	Minnesota	515.4	PRF	859.9	Cotton	624.0
6	South Dakota	841.3	California	514.5	Grain Sorghum	269.1	Rice	283.6
7	Minnesota	835.7	Washington	417.3	Annual Forage	150.9	Annual Forage	224.3
8	Nebraska	748.0	Kansas	274.3	Rice	140.4	Dry Peas	184.3
9	Indiana	527.2	Missouri	234.9	Whole Farm	124.0	Dry Beans	151.1
10	California	507.6	Arkansas	218.5	Apples	123.6	Grain Sorghum	138.3
Top 10 Sub-Total		8,846.5	6,329.6		11,998.2		7,397.6	
All Other		4,867.8	2,692.3		1,716.1		1,624.3	
U.S. Total		13,714.2	9,021.9		13,714.2		9,021.9	
Top 10 Share of U.S.		65%	70%		87%		82%	

¹Data as of April 21, 2022
Source: RMA Summary of Business

Figure 9
2021 MPCII Premium and Loss Ratios, All Plans Combined



ing date). For example, implied volatilities over the final five trading days in February for the December futures contract are used to determine the IV factor in the major corn producing states. RMA uses the IV factor to simulate the risk of an expected change in harvest price for the crop, which is then utilized to establish the price risk component of the premium rate for the specific crop. A higher IV indicates a greater likelihood for larger price movements while a lower IV implies a more stable market with expected futures prices to move within a smaller range. All things being equal, higher IV factors result in higher premiums, while lower IV factors result in lower premiums.

Historical IV values for selected major crops for the period 2014-2021 are shown in Table 6. IV factors for 2019 and 2020 were relatively stable for the major crops and below historical price volatility levels. Between crop years 2019 and 2020 there were either no or small decreases in the IV values with the exception of rice, which saw a small increase.

This is in sharp contrast to the IV factors observed for 2021. With exception of winter wheat

RMA annually calculates the implied volatility factor for a crop by averaging the implied volatility of in-the-money options for a designated

futures contract over the final five trading days of the discovery period for that crop (generally the last five trading days before the sales clos-

Table 5
Major Revenue Policy Base Prices¹

	2015	2016	2017	2018	2019	2020	2021	2022	% CHANGE	
									2020/21	2021/22
Wheat, Winter (\$/bu) (KS)	6.30	5.20	4.59	4.87	5.74	4.35	4.90	7.08	12.6	44.5
Wheat, Spring (\$/bu) (ND)	5.85	5.13	5.65	6.31	5.77	5.56	6.53	9.19	17.4	40.7
Corn (\$/bu) (IL)	4.15	3.86	3.96	3.96	4.00	3.88	4.58	5.90	18.0	28.8
Soybeans (\$/bu) (IL)	9.73	8.85	10.19	10.16	9.54	9.17	11.87	14.33	29.4	20.7
Upland Cotton (\$/bu) (MS)	0.63	0.62	0.73	0.75	0.74	0.70	0.80	1.02	14.3	27.5
Rice (\$/cwt)	²	11.90	10.40	11.90	10.80	12.10	12.70	14.50	5.0	14.2

¹Revenue Protection for 2015-22 as of April 21, 2022.

²Due to insufficient futures price data, revenue insurance was not available in 2015.
Source: RMA Actuarial Information Browser

Table 6
Volatility Factors

	Historical Price Volatility ¹	Volatility Factor ²										
		1968-2021	2015	2016	2017	2018	2019	2020	2021	2022	% CHANGE	
											2020/21	2021/22
Wheat, Winter (\$/bu)	0.19	0.17	0.22	0.18	0.16	0.19	0.17	0.16	0.21		-5.9	31.3
Wheat, Spring (\$/bu)	0.22	0.15	0.15	0.13	0.13	0.14	0.14	0.18	0.23		28.6	27.8
Corn (\$/bu)	0.20	0.21	0.17	0.19	0.15	0.15	0.15	0.23	0.23		53.3	0.0
Soybeans (\$/bu)	0.18	0.16	0.12	0.16	0.14	0.12	0.12	0.19	0.19		58.3	0.0
Upland Cotton (\$/bu)	0.23	0.15	0.14	0.15	0.14	0.14	0.13	0.20	0.22		53.8	10.0
Rice (\$/cwt)	0.22	³	0.15	0.17	0.12	0.11	0.13	0.15	0.10		15.4	-33.3

¹Historical volatility values are obtained by fitting log-normal distribution to the time series of the ratio of the harvest price to the base price from 1968 to 2021. For each year in that time period, the harvest and base prices are calculated by using relevant futures prices in that year. Source: Barchart.com

²Revenue Protection as of April 21, 2022.

³Due to insufficient futures price data, revenue insurance was not available in 2015.
Source: Various RMA Manager's Bulletins

which exhibited a -5.9 percent decrease, the remaining major crops experienced significant upward swings between 2020 and 2021. Combined with the higher level of base prices, the significant increase in IV factors for the major crops result in substantial premium increases for 2021.

Figure 10 shows the change between the base prices established at the outset of 2021 in relation to the harvest prices established close to the end of the growing season. The harvest prices provided in Figure 10 are the average daily prices in the harvest month for the same futures contract used to establish the base price earlier in the year. Harvest prices are an essential element of the calculation process as they are used to determine the farmer's actual revenue, which in turn is used to establish the amount of indemnity provided by Revenue Protection (RP) policies.

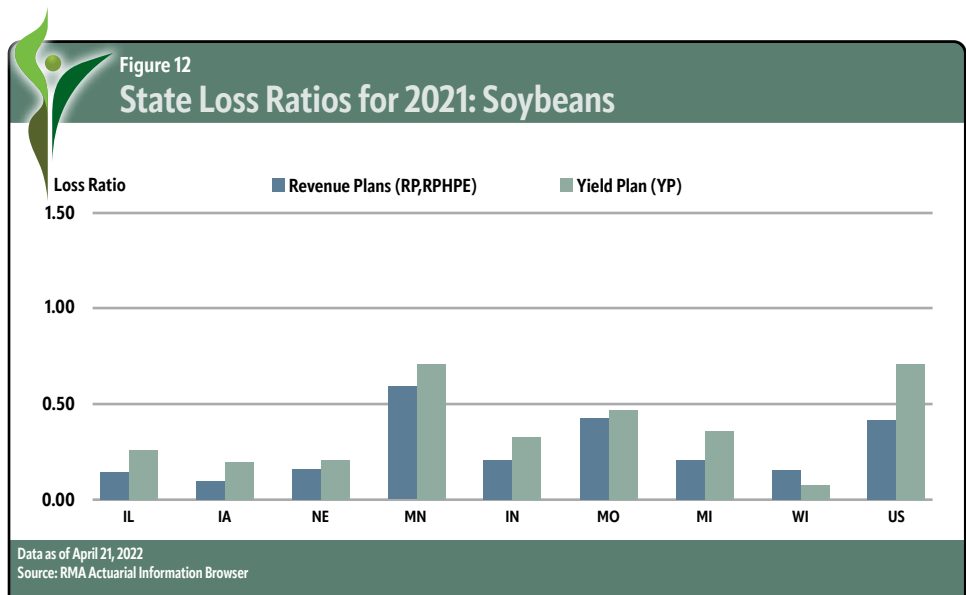
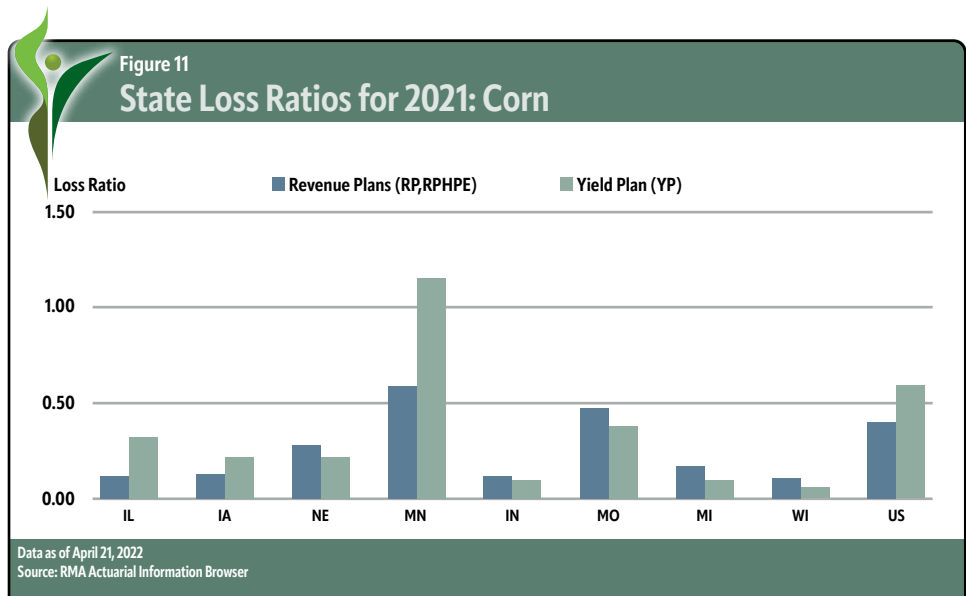
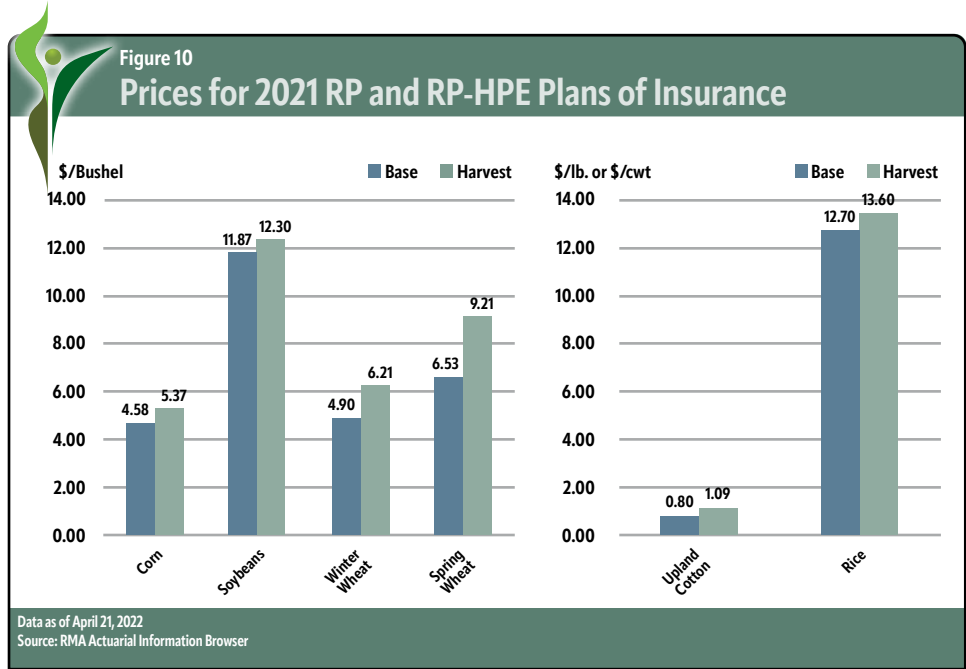
Harvest prices for all major commodities increased for 2021. Corn increased from \$4.58 to \$5.37 per bushel, soybeans from \$11.87 per bushel to \$12.30, winter wheat from \$4.90 to \$6.21 per bushel, spring wheat from \$6.53 to \$9.21 per bushel, cotton from \$0.80 to \$1.09 per bushel, and rice increased from \$12.70 to \$13.60 per cwt. The largest increase in base price to harvest price observed was for spring wheat increasing from \$6.53 per bushel to \$9.21 per bushel, an increase of 41 percent.

Figure 11 contains loss ratios by state for the corn yield plan of insurance (YP) and corn revenue plans of insurance (RP and RP-Harvest Price Exclusion combined) for the states of Illinois, Iowa, Nebraska, Minnesota, Indiana, Missouri, Michigan, Wisconsin, and Wisconsin. YP plans experienced higher loss ratios than the revenue plans in a number of states, mostly the result of experience for the RP plans reflecting higher yields offsetting changes in price for the crop year.

For 2021, the corn RP plans within the Corn Belt states experienced loss ratios just over 50 percent, with Minnesota experiencing the highest loss of over 1.00.

Figure 12 shows that, at the national level, the loss ratio for soybean RP plans was slightly higher than corn. Minnesota was the only state to experience an above 50 percent loss ratio for soybeans in 2021.

[Information sources for this section includes USDA, Foreign Agricultural Service, P, S & D database; Office of the Chief Economist; World Agricultural Supply and Demand Estimates Report (WASDE), various issues; NASS Quick Stats; RMA Manager's Bulletins, Price Discovery Application, and Actuarial Information Browser.]



Program and Policy Developments

Resiliency In a Persistent COVID-19 Environment

As the realization settled in that COVID-19 was more than just a one-year event, the Federal crop insurance program continued to adapt and make plans for a much longer period of servicing America's farmers during the pandemic. While continued social distancing, quarantine, and "stay at home" orders disappointed many at the end of 2020, especially during the holiday season, industry and RMA program leaders were looking ahead to 2021 recognizing the program would face more challenges to providing the high-quality service America's farmers have become accustomed to. Customer service was changing, there was no "business as usual" and flexibility and resiliency would be needed to ensure the Federal crop insurance program remained responsive, viable, and supportive of a strong farm economy in the face of COVID challenges.

Many of the COVID-19 flexibilities that had been developed during 2020 were continued into 2021. These included extending time to file production reports and complete perennial crop inspections, creating efficiencies in handling written agreements between RMA and approved insurance providers (AIPs), allowing greater flexibility to execute business transactions by utilizing digital signatures and phone confirmation of business transactions with written follow-up. From a loss perspective there was an increase in acres eligible for self-certification replant claims; additional time allowed for organic certification; a waiver of witness signature requirements for an assignment of indemnity; and modifying livestock policy requirements to recognize COVID implications resulting from "dumped" milk production.

At the same time there was a continued focus on the health and safety of employees, agents, loss adjusters, and policyholders. While most people still worked from home full time and continued social distancing, challenges were emerging as to strategies for holding effective meetings and on-site field training activities to assure the crop insurance program operated as intended and with a high degree of integrity. One of the biggest challenges for 2021 was transitioning NCIS sponsored loss adjuster schools from an "in-person" to a virtual platform experience.

NCIS policy and training staff identified critical elements necessary to develop a virtual loss adjustment training experience and called upon the regional/state committee members for their assistance and expertise. Committee volunteers captured video of the adjustment process and assisted NCIS staff in developing training materials that could be adaptable to virtual presentations. Over 70 committee volunteers helped enable NCIS staff to continue training adjusters safely and efficiently by offering 12 core crop schools with more than 1,000 participants. The pivot to a virtual environment to support member standing committees, regional and local adjuster training sessions, along with national conferences, was not without stress, difficulty, and the usual expected hiccups. But the "Total Team" effort was more than a "Teams" call and led to rewarding and upbeat professional training sessions, and the opportunity to learn and practice new skills, which set in motion a resilient training curriculum for the future.

COVID-19-related flexibilities were ultimately extended into mid-January 2022. The industry's investment and reliance on technology, infrastructure, and its human capital responsible for today's efficient and highly flexible delivery system has been critical in successfully navigating this historic pandemic period. In turn, the Federal crop insurance program continued to help American agriculture support and strengthen our national security during a time the world relied more on more on America's farmers.

Post-Election, Transition, and New Leadership and Ideas

On the heels of the 2020 Presidential election, the industry prepared for new leadership at USDA, along with the potential for new ideas, priorities, and program direction. As past Administration officials left and new "transition teams" arrived, numerous career civil servants were asked to fill critical roles until arrival of new political leadership. The crop insurance program was fortunate to have strong industry and career civil service leaders to manage the ongoing challenges during a pandemic and the usual day-to-day issues and problems that arise in an ever-growing and expanding program with over \$150 billion of crop and livestock liability.

One of the first new initiatives came about in June when RMA announced that it created the Pandemic Cover Crop Program (PCCP) designed to provide financial assistance to farm-

ers impacted by the effects of the pandemic and market disruptions. This new program, supporting cover crop conservation practices, used funds available as part of the Pandemic Assistance funded by the Consolidated Appropriations Act of 2021. The PCCP provided premium support to eligible farmers who insured their spring crop and planted a qualifying cover crop by June 15 during the 2021 crop year. The premium support was established at \$5 per acre, and Approved Insurance Providers adjusted the farmer's billing statement to reflect a discount in the premium owed by an amount calculated by RMA. To receive the \$5 per acre benefit, farmers reported their qualifying cover crop acres to the Farm Service Agency, and in turn RMA matched those cover crop fields against the insured fields and acreage reported by the farmer to their insurance company. The first year of this new program saw a little over 12 million acres of qualifying cover crops planted and resulted in about \$60 million in premium discounts for insured farmers. The program was popular, successful by most measures, and was continued for the 2022 crop year.

By mid-summer RMA had re-evaluated the role of cover crops in relation to the Federal crop insurance program recognizing the multiple benefits of cover crops and their interaction with current and future cropping systems. Those benefits included preventing soil and wind erosion, improving the soil's physical and biological properties, and suppressing weeds, all factors especially important when soil is left bare after a prevented planting situation. Previously, crop insurance procedures for cover crops planted on prevented planting acreage provided that a cover crop could not be hayed, grazed, or cut for silage, haylage, or baleage, until after November 1, or risk being considered a second crop, resulting in a 65 percent reduction of the full prevented planting payment. RMA administratively rescinded the November 1 date related to acreage that was prevented from planting and that a cover crop was subsequently planted and used for haying, grazing, cutting for silage, haylage or baleage for the 2021 crop year resulting in the removal of a reduction in the prevented planting payment. Later in the fall of 2021, RMA made the change permanent through regulatory action for the 2022 and succeeding crop years. However, a cover crop harvested for grain or seed at any time still results in a prevented planting payment reduction. This effort was another example of how the program was responsive to climate change initiatives aimed at increasing cover crop acreage.

On November 15, Marcia Bunker was named the new Administrator, becoming the first member of the Asian American and Pacific Islander community and the first woman to serve as RMA Administrator. Based on her previous experience and relationship with farm programs and crop insurance, she immediately jumped right in by participating in the NCIS Fall Train-the-Trainer Conference and actively working with industry leaders to continue moving the program forward.

Drought in the West, High Plains, Northern Plains, and Other Loss Events

In this section, we take a closer look at the regional weather events occurring in 2021 and the associated program experience. These weather events brought their own challenges and opportunities for the crop insurance program to successfully demonstrate why it is the farmer's go to program for risk management. The Far West continued to suffer drought from lack of snow pack and rains, with irrigation water supplies drying up and perennial crops and non-irrigated fields withering in the heat and extreme dry weather. And in the Dakotas and Montana, the crippling drought was compounded by grasshoppers feasting on any remaining vegetation. Drought and heat related losses made up over 50 percent of the roughly \$9.1 billion in total indemnity payments in 2021, accounting for approximately \$4.6 billion paid to farmers. After several recent years of excess moisture conditions, North Dakota had a turn of events and incurred the most drought related indemnities of over \$1.5 billion. South Dakota followed with over \$580 million, along with Minnesota and Montana with \$483 and \$474 million, respectively. The wheat crop, with indemnities of about \$1.3 billion, was the most impacted by drought, followed by corn and soybeans of \$1.1 billion and \$813 million, respectively. Other crops grown primarily in the northern plains like dry peas, dry beans, and canola ranked next in highest drought related payments. And in West Texas and the panhandle it continued to be dry with indemnities paid on cotton and grain sorghum losses. RMA issued four Manager Bulletins providing relief and flexibilities for various drought related reasons. The first recognized the severe drought conditions generally across much of the country, authorizing emergency procedures to streamline and accelerate the adjustment of losses. This would help prevent unnecessary delays in processing claims and

allow farmers to make timely policy decisions to maximize their risk management protection. AIPs began early to make crop appraisals and inspections, timely release acreage, and make timely payment of indemnities to insured farmers when they most needed them. With the drought showing no signs of letting up in many areas of the country and farmers seeking additional assistance, RMA responded by providing flexibility to help farmers and ranchers by authorizing AIPs to provide additional time for farmers to make payment of premium. The drought also affected the needed supplies of livestock feed and forage causing ranchers to market livestock sooner than anticipated, which led RMA to announce measures authorizing AIPs to waive the 60-day ownership requirement for Livestock Risk Protection Specific Coverage Endorsements beginning in August. And by late August RMA, determined that the early harvest adjustment would not apply to any sugar beet units when the AIP determined that drought was the primary cause of loss.

But as so often happens within the Federal crop insurance program, the flip side of drought, excess moisture losses, can be devastating to others. Excess moisture, precipitation, and other related causes of loss resulted in the second most indemnities paid, over \$1.5 billion. Of this amount, almost 70 percent of the indemnities were paid for harvested or unharvested acreage impacted by weather events with too much rain or moisture. Over half of these indemnities went to five states, with Texas receiving \$220 million, Arkansas \$194 million, Missouri \$174 million, Georgia \$120 million, and Mississippi \$101 million. And when discussing losses due to excess moisture and precipitation one usually cannot disregard prevented planting losses. However, 2021 turned out to be a somewhat quieter year for prevented planting payments with \$569 million being paid nationwide due primarily to excess moisture-precipitation and failure of the irrigation water supply. California and Arkansas were the top two states with prevented planting payments of approximately \$182 million and \$116 million, respectively. Rice, with \$195 million, and corn with \$105 million, were the top two crops in prevented planting payments. This was, however, a considerable turnaround from the prior to two crop years.

The 2021 hurricane season was relatively quiet, with indemnities of around \$37 million in areas where the Hurricane Insurance Protection-Wind Index Endorsement (HIP-WI) was available. In its second year, HIP-WI saw several

revisions and clarifications made to improve coverage and offer greater transparency in the methodology for triggering counties. The program for the 2021 crop year saw almost 23,000 endorsements earn premium with liability of more than \$1.1 billion. And experience was far different than the first year, when there were seven named hurricanes, with only two named hurricanes, Ida and Nicholas, resulting in indemnities of approximately \$80 million and a loss ratio of .47. Hurricane Ida caused enough infrastructure damage just prior to major crop insurance program sign up deadlines that RMA granted farmers flexibilities in those deadlines to assure they could meet linkage requirements for the Farm Service Agency Quality Loss Adjustment and Wildfire and Hurricane Indemnity Program-Plus programs.

The 2021 crop year ended up experiencing good weather and excellent resulting crop yields in many areas of the country, with an overall crop program loss ratio anticipated to be approximately .67. As crop prices began an upward movement in late summer and early fall, farmers could begin to look towards the prospects of positive returns after struggling through COVID issues and the extreme back-to-back weather events of 2019 and 2020. However, it would not be long before those prospects were dampened by new threats on the horizon of significant escalating input costs.

Growing, Improving and Expanding Program Coverage

The efforts of both the industry and RMA continued in earnest towards expanding the availability of coverage for new crops, areas, and production and marketing risks, along with the never-ending task of continually maintaining and improving the 134 various crops and livestock programs. Together they represent over 600 crop-livestock and related differing types insured in today's program. The myriad of options, endorsements, and various elections available in today's program totaling over 170,000 different county crop program actuarial offers. Challenges abound in maintaining and keeping current on prices, premium rates, underwriting rules, special provisions, and key agronomic planting dates among many other factors in establishing the multitude of insurance offers available to farmers. All of this occurs while still dedicating time and making key efforts at improving existing policies and coverage. And as the popularity and effectiveness of the program has soared in the last



Drought in the West

couple of decades, there is continued demand for new crop policies and coverage into all areas of production agriculture. The industry and RMA worked collaboratively to hold virtual listening sessions and meetings, share draft proposals for comment and feedback, work with growers and program representatives to find effective and efficient risk management solutions for both new crop development and maintenance of existing crop programs. In total, RMA updated, revised, or issued new policies for approximately 20 individual crop programs, some of which included Production Revenue History for strawberries, hybrid vegetable seed, forage seeding, malt barley, grape, Florida citrus, sweet and tart cherry, pistachio, camellia, and hemp among many others. In addition, improvements were made to area or index-based programs like Stacked Income Protection, Rainfall Index, and the Hurricane Insurance Protection-Wind Index plan, all of which impacted numerous insured commodities heading into the 2022 crop year. And 2021 saw more changes to the Common Crop Insurance Policy and Area Risk Protection Insurance Basic Provisions applicable to the November 30 contract change date addressing improved coverage for organic crops, providing greater flexibility around cover crop uses without reducing prevented planting payments, and clarifying requirements around the “1 in 4” rule for prevented planting. Again, this required NCIS and the AIPs to move quickly in training and educating the delivery system workforce so farmers could be fully aware of their enhanced coverage options and program requirements.

The Federal Crop Insurance Corporation Board of Directors (Board) remained busy addressing numerous efforts of RMA and private developers at improving, modifying, and expanding the crop insurance program. The Board acted upon over 50 different submissions ranging from confidential submissions for new concept proposals or revised policies or products, to fully developed and complete private sector and RMA product submissions that either modified, clarified, or expanded existing or previously approved products, and ultimately establishing user fees for proven products in the marketplace. These efforts included improvements and modifications of livestock policies with increased head limits, new types of cattle and swine, modified ownership requirements, revised dairy class pricing values along with making numerous policy provision improvements, and revised sales periods geared towards greater participation and producer use of the widely available livestock coverage. These, among other recent Board efforts at improving livestock policies stemming from the 2018 Farm Bill, have resulted in a dramatic increase in livestock business. Since the 2018 insurance year, livestock premium earning policies have increased almost five-fold and liability has jumped from just over \$500 million to over \$14.2 billion for 2021. And it appears this business is continuing to grow, garnering more attention from all stakeholders, and keeping the program on everyone’s radar moving forward. The Board also addressed improvements to nursery, pulse crops, hybrid seed crops, tree crops including pecans, macadamia, citrus and apple, and specialty crops

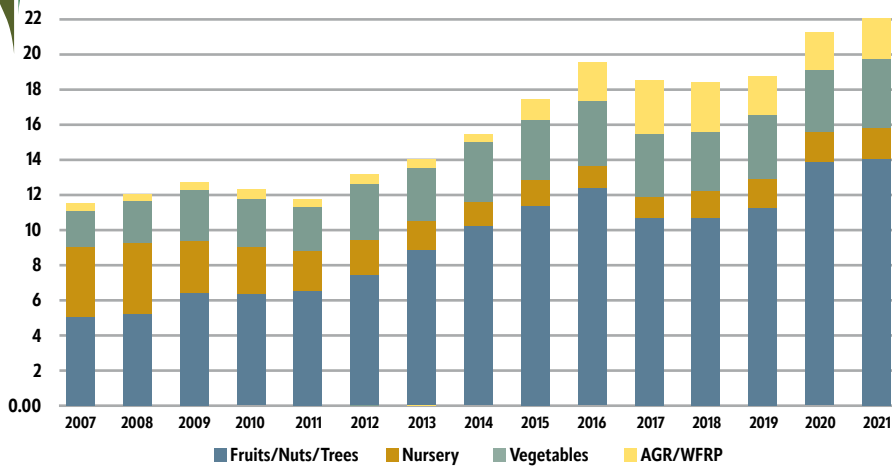
like fresh market beans, Florida citrus, sweet and tart cherries, and caneberries. For newer crop programs there is a continuous improvement effort as more underwriting and loss adjustment experience is gained from insuring these crops for the first time. While most remember the huge expectations created for hemp stemming from the 2018 Farm Bill, and the FCIC Board and RMA moving expeditiously to approve an individual insurance policy, first year results were mixed given concerns with initial rules for hemp production. Subsequent policy modifications were made along with additional expansion to more states for the 2021 crop year. Unfortunately, 2021 crop year results were not responsive to the changes with only 55 policies earning premium on a little over 10,000 acres. However, about half of those policies experienced an indemnity with the year’s loss ratio settling around 2.67. More changes and clarifications were made in 2021 for the 2022 crop year and time will tell if this program reaches closer to its expectations.

The Whole Farm Revenue Protection (WFRP) policy continued to see more modifications aimed this time at improving effectiveness for organic growers, aquaculture producers, and small, highly diversified farmers. This included increasing expansion limits for organic farmers by up to \$500,000 and up to \$8.5 million for aquaculture producers, adding flexibility around reporting acreage as certified organic while seeking an organic certification, and providing flexibility to report partial yield history when records are lacking by use of a “zero” yield for missing years. While policy sales have declined the WFRP pol-



Figure 13

FCIC Program Growth for Specialty Crops



icy continues to account for roughly \$2.2 billion of the program's overall liability, the sixth largest plan of insurance in the crop insurance portfolio.

The WFRP policy also was the basis for development of a new Micro Farms policy released in late 2021 effective for the spring 2022 crop year. This new policy is intended to provide an insurance option and protection for small-scale farmers who have operations that earn an average allowable revenue for new farmers of \$100,000 or less, or for carryover insureds of \$125,000 or less. While all coverage levels will be available, those farmers purchasing higher coverage levels at 80 and 85 percent may do so without providing additional paperwork. In addition, underwriting and record keeping requirements are minimized, there is no requirement to report expenses and individual commodities, and post-production revenue, like value added products or washing

and packaging commodities, can be included as revenue. It is likely to take some time for sales to ramp up as agents become familiar with this new program, and as a new segment of farmers become aware of this new policy. However, this targeted effort is just another example of the crop insurance program adapting to cover another of the many aspects of production agriculture.

Annually, RMA evaluates potential new areas for expanding existing crop programs, and 2021 was no different. RMA expanded 17 existing programs for dry beans and peas, fresh market sweet corn and tomatoes, peanuts, grain sorghum, corn, popcorn, safflower, soybeans, almonds, blueberries, grapes, mandarins, pistachios, walnuts, and barley into a total of 11 states and 27 counties addressing farmer requests for wider availability of coverage.

Lastly, RMA sent an updated 2021 Specialty

Crop Report to Congress that highlighted progress on research and development activities related to expanded coverage for specialty crops that includes fruits, nuts, trees, nursery, vegetables, and coverage under WFRP. This encompassing report highlighted achievements and accomplishments in addressing 2018 Farm Bill requirements, new and ongoing research, studies, and initiatives aimed at expansion efforts, and overall specialty crop program improvements. In 2021, the amount of insurance for specialty crops reached approximately \$22 billion (Figure 13) reflecting positive grower response to the overall program enhancements. And as efforts around the feasibility of insuring local food production and nursery greenhouses continue, in addition to more activity on expanding existing programs and exploring new crops for development, the future looks bright for specialty crops and organics to see even more growth.

U.S. Crop-Hail Experience

Crop-Hail insurance policies insure direct damage from hail as the primary cause of loss. In addition to hail damage, many policy forms carry endorsements for additional perils such as wind, fire, vandalism, and theft.

Crop-Hail premium rose gradually over the past 10 years, was down slightly in 2020 at \$1.010 billion but bounced back to \$1.28 billion in 2021. Crop-Hail provided \$40.3 billion in private insurance protection to U.S. farmers in 2021, and losses paid out were \$924 million (Table 7).

The industry loss ratio, defined as paid losses divided by premium written, was 0.79 in 2021, down from 1.14 in 2020 and 0.98 in 2019.

There were six storm days that exceeded \$20 million of loss in 2021. The most significant storm occurred on July 9 causing \$118 million in Crop-Hail losses with \$95.3 million of that occurring in Nebraska alone. Two storms in July caused more than \$144 million in damage across 22 different states. Three storm days in August caused more than \$130 million in damage. In total, the losses from the top 10 storm days amounted to \$393 million, down significantly from \$570 million in 2020. Five states took the brunt of the major storms, with Nebraska absorbing \$164.8 million of loss, Illinois \$69.3 million, Iowa \$39 million, Minnesota \$37.4, and South Dakota \$31.4 million.



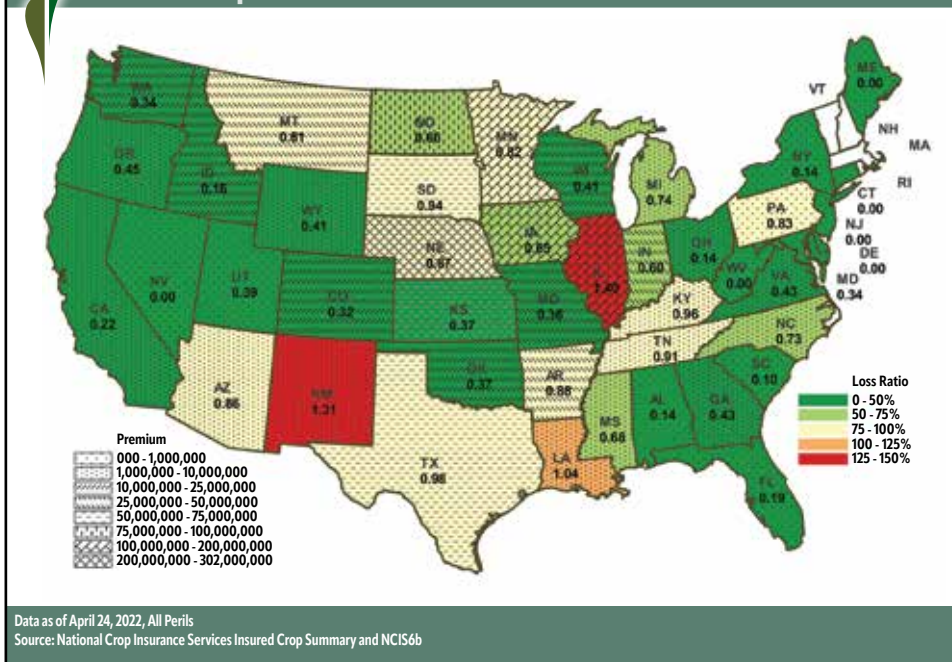
Table 7

U.S. Crop-Hail Results, All Perils

Crop Year	Liability Mil. \$	Premium Mil. \$	Losses Mil. \$	Loss Ratio
2012	39,407	955.8	704.3	0.74
2013	39,773	953.2	646.2	0.68
2014	39,652	991.7	1,209.9	1.22
2015	36,805	979.7	740.3	0.76
2016	36,178	983.3	880.1	0.90
2017	35,775	958.8	882.0	0.92
2018	36,084	987.3	937.4	0.95
2019	35,359	1,019.6	996.5	0.98
2020	35,802	1,010.0	1,154.4	1.14
2021	40,309	1,167.3	924.2	0.79

Data as of April 24, 2022
Source: Adjusted Verified Totals, US only, for NCIS member companies combined with the data from non-members.

Figure 14
2021 Crop-Hail Premium and Loss Ratios



Crop-Hail loss ratios by state are shown in Figure 14. Colors identify states with similar loss ratios, while shading is used to identify states with similar premium volume. Crop-Hail insurance was purchased in 43 states in 2020. Of these, only three had loss ratios greater than 1.00 and are shown in red and orange on the map. Illinois had the highest loss ratio of 1.4, followed closely by New Mexico at 1.31.

The top five states by premium volume—Nebraska, Minnesota, Iowa, Illinois, and North Dakota—experienced loss ratios of 0.87, 0.82, 0.65, 1.4, and 0.66, respectively. Overall, 24 of the 43 states with premium had loss ratios of 0.50 or less, shown in dark green on the map. Six states, shown in light green, had loss ratios between 0.50

and 0.75, and 10 states, shown in yellow, had loss ratios falling between 0.75 and 1.00.

[Information sources for this section include: NCIS' Insured Crop Summary and claim files.]

Canadian Crop-Hail Experience

This section of the report was prepared by the Canadian Crop-Hail Association. It can be found on their website: www.CropInsuranceIn-Canada.org.

The crop hail industry paid out near record payments on the prairies for 2021. Recording more than 12,000 claims, industry payments to

prairie producers totaled more than \$322 million—an amount not seen since 2008. Producer premiums totaled more than \$309 million for an industry loss ratio of 104 percent (Table 8). This loss will impact the balance sheet of most participating companies.

Prairie farmers were optimistic when the seed went in the ground and it was time to purchase their crop hail insurance coverage. But dry conditions were widespread across the western prairies and there were concerns going into the season after minimal fall moisture and little snow cover. But some timely early spring snow and rains brightened the outlook for seeding and provided hope.

Record dry was reported through southern Manitoba and a large portion of southern and western Saskatchewan, as well as southern Alberta. The weather dried out quickly and, with little to no reserve moisture and record heat, crops soon started to suffer. By July hopes were dashed as extreme heat and drought like conditions across much of the prairies resulted in plummeting yields. The hot and dry conditions made way for an early start to harvest with grain prices remained at near or record levels throughout the summer and into harvest.

The industry set record-level sums insured of more than \$8 billion as crop prices surged and spring looked promising. Producers continued to welcome industry rate declines in what continues to be a very competitive marketplace.

Storm frequency was below average in 2021. The number of days producing active weather fell below the five-year average. Storm severity, or the cost per claim quickly built like the clouds that caused the hail. What looked to be an average storm season produced record high claim payments. All three prairie provinces had average cost per claims higher than the five-year average. The industry saw record loss payments from the activity with storm severity (average per claim) up 78 percent compared to the five-year average.

With the lack of moisture, the western prairies received less-than-average storm days throughout the summer, but storm severity made up for the decrease in storm days. The summer started off slow with June seeing storm activity down 25 percent from the five-year average. July continued with limited active weather. However, the limited storms produced in July were the start to what was to become an expensive claim season.

Hardest hit was Saskatchewan with an indus-

Table 8
Canadian Crop-Hail Results, All Perils

Crop Year	Premium Mil. \$	Losses Mil. \$	Number of Claims Mil. \$	Loss Ratio ¹
2012	341	280	21,600	0.82
2013	344	172	13,321	0.50
2014	316	249	13,372	0.79
2015	274	167	13,222	0.61
2016	302	269	20,325	0.89
2017	286	97	8,633	0.34
2018	270	171	11,709	0.63
2019	264	247	16,367	0.94
2020	301	193	12,137	0.64
2021	310	323	12,092	1.04

¹Loss ratios do not reflect loss adjustment costs
Data as of November 30, 2021
Source: Canadian Hail Association



Storm Activity

try loss ratio of 134 percent compared to 2020's 65 percent. Alberta followed with a 97 percent loss ratio, compared to 75 percent in 2020. Manitoba was the only province to record a positive year with a loss ratio of more than 26 percent.

The isolated severe storm tracks brought moisture to localized area producers, but the severity left little if any crop, or time for crop recovery, to an already dismal production.

The Canadian prairie storm season runs June through October. This year June and July saw limited storm activity with active storm days down by about 20 percent overall compared to the five-year average. August activity picked up becoming more average, but September, with harvest in full swing across the prairies, recorded lower than average activity. Despite the lower activity across most of the summer, claim frequency (claims to policy) ended up being down by only four percent compared to the five-year average.

Alberta Crop-Hail results clouded with storm activity

Alberta's storm activity resulted in heavier than average loss expense for the industry. The claim to policy ratio was 25 percent above the five-year average and average cost per claim saw an increase of more than 21 percent of the five-year average. The industry reported nine major storm days in July and August, resulting in more than 1,200 claims and costing more than \$56 million.

Alberta's costliest day was August 31 with more than 600 claims resulting in over \$20 million being paid. Following a close second was July 22 with 495 claims and a total payout of over \$17 million. Total hail payments for 2021 were more than \$82 million, the most expensive since 2016.

Total sums insured saw a small increase from 2020, with average rates charged reporting a slight increase, likely due to continued declining industry results.

Saskatchewan records largest crop hail payouts since 2008

This year's hail losses rivaled the worst ever recorded for the industry, with loss payouts of more than \$224 million. Only 2008 recorded higher claim payouts. This resulted in an industry loss ratio more than 130 percent.

The season had an early start on June 5 with a west central storm. However, the remainder of the summer saw limited but costly storm dates.

The industry reported four major storm dates in July with more than 2,600 recorded claims costing more than \$98 million.

August, which saw a more average storm activity, recorded five major storm dates. It was August 31 and September 1 that pummeled the industry to its final loss numbers. With almost 1,800 claims and a cost of more than \$43 million, this storm was still only the second worst of the season.

The single largest loss day was July 22 with more than 1,300 claims at a cost of more than \$53 million. July accounted for more than 43 percent of claims paid for the year.

With the number of claims-to-policies being 12 percent higher than the five-year average, it was really the severity of the damage that devastated the industry. The average cost per claim was more than double the five-year average.

Total sums insured saw a slight increase year-over-year, likely due to the increase in crop prices and early crop outlook prior to the drought and heat like conditions. With the industry average rate charged continuing to decline for 2021, the current average rates are now at or near their lowest historic levels.

Manitoba records sunny results for the hail industry

Seeding was mostly complete by early June, but the absence of rain was a concern after a dry winter. With below average precipitation through June, and some frost and pest concerns, crops had a below average start.

Manitoba's hail season did not really get underway until mid-July. The dry summer provided little convective weather to produce storm activity. The industry reported only four major storms in July resulting in 419 claims with a payout of \$6.4 million.

Historically July is one of the most active months. With the dry weather throughout the summer, Manitoba recorded below average claim activity. The number of claims to policy was down 66 percent from average. Hail frequency (active weather) was down about 15 percent from average. The average cost per claim (severity) was up about 23 percent compared to the five-year average.

Total claim payments were more than \$15 million, comparable to 2020, resulting in an overall loss ratio of 26 percent. Industry reporting sums insured were up about 10 percent. The industry

average premium rate charged saw a minimal decline, likely due to the historic loss results and the continued competitive nature of the industry.

Conclusion

As 2021 came to a close the crop insurance program and delivery system continued to be flexible and adaptable in meeting the ongoing agronomic and operational challenges compounded by an ongoing and relentless pandemic. Those year-end challenges were exacerbated by growing supply chain problems and escalating input costs as farmers and the industry looked towards 2022. However, the Federal crop insurance program, its delivery system, and all its stakeholders are resilient and have demonstrated that working together they can overcome and address the many complex issues that continue to emerge in agriculture today. By accomplishing the program's mission to improve the economic stability of agriculture through a sound, efficient, and effective system of crop insurance, the crop insurance industry helps farmers sustainably produce the food and fiber needed for a strong, vibrant, and secure farm economy, which is good for all Americans.



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