

Ode to Happiness for Sunday June 6 2021

## **D-Day Plus 28,945**



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## **Algae Proteins Partially Restore Man's Sight**

By James Gallagher, Health and science correspondent; for Twitter



*Getty Images*

The vision of a completely blind man has been partially restored using light-sensing proteins first found in algae.

The man was treated with a type of therapy called optogenetics, which uses the proteins to control cells at the back of his eye.

He first knew it was working when he realized he could see the painted stripes of a pedestrian crossing.

He can now grab and count objects on a table, Nature Medicine reports.



josé-alain sahel and botond roska, nature medicine

The man, whose identity has not been revealed, lives in Brittany, France, and was treated in Paris.

He was diagnosed with retinitis pigmentosa - which leads to the death of light-sensing cells on the surface of the retina - 40 years ago.

It affects more than two million people worldwide, and although complete blindness is rare, the man has had no vision for the past two decades.

He was treated with optogenetics - a field new to medicine, but one that has long been a staple of fundamental neuroscience.

It uses light to control precisely the activity of brain cells and was used by the scientists to restore the ability of one of his eyes to detect light.

The technique is based on proteins, produced in algae, called channelrhodopsins, which change their behaviour in response to light. The microbes use them to move towards the light.

The first step in the treatment was gene therapy. The genetic instructions for making the rhodopsins were taken from algae and given to cells in the deep surviving layers of the retina at the back of his eye.

Now when they were hit with light they would send an electrical signal to the brain.

However, they would respond only to amber light, so the patient wore a pair of goggles with a video camera on the front and a projector on the back, to capture what was happening in the real world and project a version in the right wavelength onto the back of the eye.

It took months for high enough levels of the rhodopsins to build up in the eye and for the brain essentially to learn a new language to be able to see again.

'We were all excited'

The first sign it was working was when the patient was out on a walk and suddenly, the stripes of a pedestrian crossing appeared.

Dr José-Alain Sahel, from the Institute of Vision, in Paris, said: "This patient initially was a bit frustrated because it took a long time between the injection and the time he started to see something.

"But when he started to report spontaneously he was able to see the white stripes to come across the street you can imagine he was very excited. We were all excited."

The man does not have perfect sight, but the difference between no vision and even limited vision can be life-changing.

Prof Botond Roska, from the University of Basel, said: "The findings provide proof-of-concept that using optogenetic therapy to partially restore vision is possible."

There are several other approaches being used to try to restore sight.

One includes repairing the genetic defects that cause disease, but retinitis pigmentosa can be down to mutations in more than 71 different genes, making that more of a challenge.

Another involves connecting a camera to electrodes implanted in the back of the eye.

Optogenetics itself is also being researched in conditions such as Parkinson's disease, and to see whether it can enhance recovery from a stroke.

James Bainbridge, a professor of retinal studies at the UK's UCL, said the study was high-quality, but on just one patient.

"This exciting new technology might help people whose eyesight is very severely impaired," he said.

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## Motherhood Challenges the World Over



<https://www.youtube.com/watch?v=FBlo6su5wRY>

My only suggestion is you turn off the sound

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## Simone Biles Returns to Competition at US Classic at Highest Level Ever



*topsportsextra*

Check out Simone Biles as she lands a Yurchenko double pike vault, which had never been performed by a woman in a gymnastics competition. She went on to show why she is the greatest gymnast ever.

<https://www.youtube.com/watch?v=ONyiqoyAeco>

With time on her hands and a world-class gym at her disposal after the 2020 Olympics were postponed, Simone Biles started experimenting almost as a way to stave off the monotony of training.

Pretty soon a vault that she occasionally tinkered with for fun -- the Yurchenko double pike -- started to look like a vault she could pull off in competition.

So what if it had only historically been done by men? So what if the International Gymnastics Federation seemed intent on not giving the vault a difficulty value commensurate with its complexity?

The vault exists. She can do it. So, why not? She didn't stick around for another year just to fool around. She stuck around to keep making history.

So she did. Again.

Stop everything you're doing and watch Simone Biles' Yurchenko double pike vault

Hands seemingly magnetized to her hamstrings as she soared off the vaulting table, Biles drilled the Yurchenko double pike during her victory at the U.S. Classic in Indianapolis on Saturday night. The 24-year-old defending world and Olympic champion generated so much momentum, she took a couple of big hops upon landing before letting out a semi-relieved smile.

Get ready to add another element in her name in the sport's code of points, even she thinks the 6.6 start value for the Yurchenko double pike -- just a tick above significantly less difficult vaults -- isn't as high as it should be.

"That's on the [International Federation of Gymnastics], that's not on me," Biles said. "They have an open-end code of points, and now they're mad people are too far ahead and excelling."

And no one in the sport has ever excelled as much as Biles. Her all-around score of 58.400 in her first event in more than 18 months was easily the best of the night, even though she shorted her dismount on floor exercise and sailed off the uneven bars.

"I'm not really mad about today," she said.

No need to be. After teasing the Yurchenko double pike for the better part of a year and then unveiling it during training on Friday -- a move that caught the attention of people like Lakers star LeBron James -- Biles made it official in front of the women trying to join her on the Olympic team this summer.

Wearing a white leotard with a rhinestone goat -- a nod to her status as the greatest of all time -- Biles sprinted down the runway, did a roundoff onto the springboard followed by a back handspring onto the vault, finishing with two backflips with her legs ramrod straight and her hands clasping the back of her legs.

It wasn't quite perfect. No worries; she'll get more chances over the next two months. Even though she doesn't agree with the way it's being judged, she has no plans to stop throwing it.

"I know it's not the correct one, but I can still do it," Biles said. "So why not just show off my ability and athleticism?"

Same as it ever was for Biles, whose spot on the U.S. Olympic team is assured. The other spots remain up in the air, though Jordan Chiles is making a serious case to join good friend Biles on the plane to Tokyo.

The 20-year-old proved her victory in the Winter Cup in February was no fluke. Chiles finished second in the all-around (57.100) to Biles and ranked in the top four in each of the four events.

"I [proved] I can do this multiple times and not just a one-time thing," Chiles said.

Kayla DiCello came in third, buoyed by a victory on bars. The 17-year-old was in the mix to make the Olympics a year ago but said the decision to push the games to 2021 due to the COVID-19 pandemic helped her because it gave her time to add difficulty to her routines necessary to separate herself from a talented and crowded field.

It's a field that includes 2017 world all-around champion Morgan Hurd. The 19-year-old competed on beam and floor exercise in her first competition since March 2020.

Competing slightly watered-down routines, her scores weren't where they will need to be in time for Olympic trials in late June.

Hurd, however, isn't panicking.

"Yeah, I was shaky, but usually in the beginning of my [competition] season I am a little bit shaky and a little bit sloppy and not at my best," she said. "I don't want to be great now; I want to be great later."

Sunisa Lee, who won three medals at the 2019 world championships, came off both bars -- her signature event -- and beam. Riley McCusker, a world championship team member in 2018, appeared to injure her left leg on her vault, and she is being evaluated. MyKayla Skinner, an Olympic alternate in 2016 and three-time world championship team member, came off the beam but drilled two vaults in her first meet since a number of health issues, including battles with COVID-19 and pneumonia.

"It was interesting to see a little more falls [overall] than what we thought we would see," said national team coordinator Tom Forster. "[But] we've missed so many competitions since 2019.

"The ones who were really ready rose to the top, is what it looks like, so I think [the Olympic picture] seems clear."

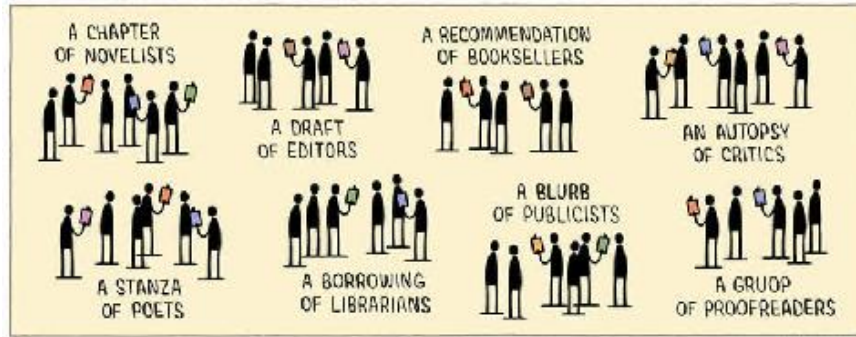
Chellsie Memmel clenched her fists in joy after landing her vault in her first competitive meet in more than nine years. The 2005 world all-around champion and 2008 Olympic silver medalist's score of 13.750 didn't matter. Neither did a nervous beam routine that finished with an 11.800. Saturday was about simply arriving at the moment itself.

"I was just overwhelmingly happy that it went OK today," Memmel said. "Obviously, beam I would have to have it gone better, but I'm still happy with everything that I did and happy that I was out on the floor, that I put myself out there to even get to this point, to try this again, to, you know, to put on a and to register for a competition."

Mommel is petitioning for a spot in next month's national championships, one that women's national team coordinator Tom Forster said will be accepted.

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SOME LITERARY COLLECTIVE NOUNS



TOM GAULD

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## Comfortably Numb: Pink Floyd



[https://youtu.be/ FrOQC-zEog](https://youtu.be/FrOQC-zEog)

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## What Is Plate Tectonics?

By Tiffany Means

Plate tectonics explains the movement of Earth's surface.



*Plate tectonics is the means by which mountains are formed.  
(Image: Early One Summer; Barbara Medaile; Oil 24 x 36)*

From the deepest ocean trench to the tallest mountain, plate tectonics explains the features and movement of Earth's surface in the present and the past.

Developed from the 1950s to the 1970s, the theory of plate tectonics is the modern update to continental drift, an idea first proposed by scientist Alfred Wegener in 1912 which stated that Earth's continents had "drifted" across the planet over time. Wegener didn't have an explanation for how continents could move around the planet, but researchers do now:

### **Plate tectonics.**

Plate tectonics is the theory that Earth's outer shell is divided into large slabs of solid rock, called "plates," that glide over Earth's mantle, the rocky inner layer above Earth's core. Earth's solid outer layer, which includes the crust and the uppermost mantle, is called the lithosphere. It is 100 km (60 miles) thick, according to the Encyclopedia Britannica. Below the lithosphere is the asthenosphere — a viscous layer kept malleable by heat deep within the Earth. It lubricates the undersides of Earth's tectonic plates, allowing the lithosphere to move around.

Nicholas van der Elst, a seismologist at Columbia University's Lamont-Doherty Earth Observatory in Palisades, New York, considers plate tectonics to be the "unifying theory of geology."

"Before plate tectonics, people had to come up with explanations of the geologic features in their region that were unique to that particular region," said Van der Elst. "Plate tectonics unified all these descriptions and said that you should be able to



describe all geologic features as though driven by the relative motion of these tectonic plates."

### **How plate tectonics works**

The driving force behind plate tectonics is convection in the mantle. Hot material near the Earth's core rises, and colder mantle rock sinks. "It's kind of like a pot boiling on a stove," Van der Elst said.

<https://www.youtube.com/watch?v=fzhPmemffII>

Meanwhile, geologists imagine the plates above this roiling mantle as bumper cars; they repeatedly collide, stick together, then rip apart. Geologists refer to the places where segments meet and divide as plate boundaries. They're thought to wrap around the Earth like seams on a baseball.

There are three ways in which plate boundaries meet, and each one triggers a unique geological feature.

Convergent boundaries occur where plates collide into one another. Where those plates meet, Earth's crust crumbles and buckles into mountain ranges. For example, India and Asia came together about 55 million years ago to create the Himalaya Mountains. As the mash-up continues, those mountains grow higher and higher. Geologists have discovered the Swiss Alps are being lifted faster than they are being lowered through erosion—and are thus growing every year, according to a 2020 study in the journal *Earth-Science Reviews*. However, when a mountain's mass becomes too large to resist gravity, it will cease to grow. Erosion also hinders growth by wearing mountains down, but because mountains can grow at a relatively fast rate, erosion typically doesn't win out, according to the University of Hawai'i at Manoa.

But converging plates don't always collide upward. Sometimes, an ocean plate (which is made of denser rock than landmasses) collides with a continental plate, in which case it "subducts" or dives beneath the other plate. It then descends into the Earth's mantle, the layer underneath the crust, melts in the mantle's hot magma, and is spewed out in a volcanic eruption. Many spectacular volcanoes are found along subduction zones, such as the "Ring of Fire" that surrounds the Pacific Ocean.

When two oceanic plates converge, a deep trench forms, such as the Mariana Trench in the North Pacific Ocean which is believed to be the deepest point on Earth. These types of collisions can also lead to underwater volcanoes.



*Plate tectonics are responsible for the Mid-Atlantic Ridge. Thingvellir Valley in Iceland is only place where the Mid-Atlantic Ridge is above sea level. Visitors can walk down the rift between the North American plate and the Eurasian plate. Volcanic activity and earthquakes are common in the area.*

*(Image credit: trover.com.)*

As the name suggests, divergent boundaries are tectonic boundaries where plates "diverge" or are tugged apart. This motion creates giant troughs on land, such as the East Africa Rift. In the ocean, this same process creates mid-ocean ridges. Hot magma from Earth's mantle wells up at these ridges, forming new ocean crust and shoving the plates apart. Underwater mountains and volcanoes can rise along this seam, in some cases forming islands. For example, the Mid-Atlantic Ridge runs directly through Iceland.

The final type of plate boundary, transform boundaries, exist where plates move sideways in relation to each other. It's the slip-sliding motion of plate boundaries that triggers many earthquakes. California's San Andreas Fault, where the North American and Pacific tectonic plates grind past each other with a mostly horizontal motion, is one famous example of a transform boundary.

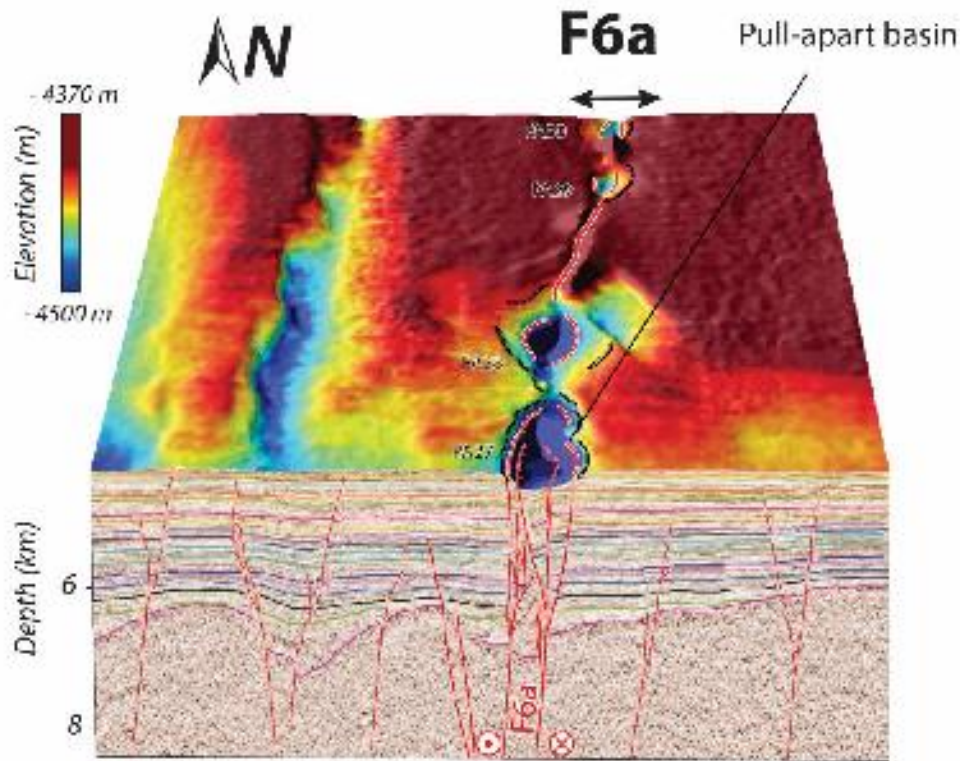
Tectonic plates move at a rate of one to 2 inches (3 to 5 centimeters) per year, according to National Geographic. That's about as fast as your fingernails grow!

### **How many plates are there?**

Because Earth is spherical, its tectonic or lithospheric plates are fractured into dozens of curved sections. (Imagine it like a cracked egg shell.) Each plate ranges from a few hundred to thousands of kilometers in size, according to the U.S. Geological Service (USGS), and depending on its size, is categorized as "major," "minor" or "micro."

According to World Atlas, seven major plates exist: the North American, Pacific, Eurasian, African, Indo-Australian, South American and Antarctic tectonic plates. However, according to a 2012 article in Nature, earthquakes over the last few decades are evidence that the Indo-Australian plate has cracked over the last 10 million years,

creating a separate Indian Plate and Australian Plate which will increase the number of major plates to eight.



*This map shows the seafloor and deformation below it at a fracture in the Wharton Basin in the Indian Ocean. This fracture likely formed when the ocean crust was formed, but now it is being turned into a new plate boundary. The depressions are indicative of a strike-slip fault, which is the same kind of fault as the San Andreas Fault in California.*

*(Image credit: Aurélie Coudurier-Curveur; Coudurier-Curveur, A. et al. Geophysical Research Letters (2020); CC BY 4.0)*

Whether that new divide counts as a boundary or not, the Pacific Plate is still the largest of all tectonic plates. It measures 39,768,522 square miles (103,000,000 square kilometers) in size, and lies hidden beneath the ocean.

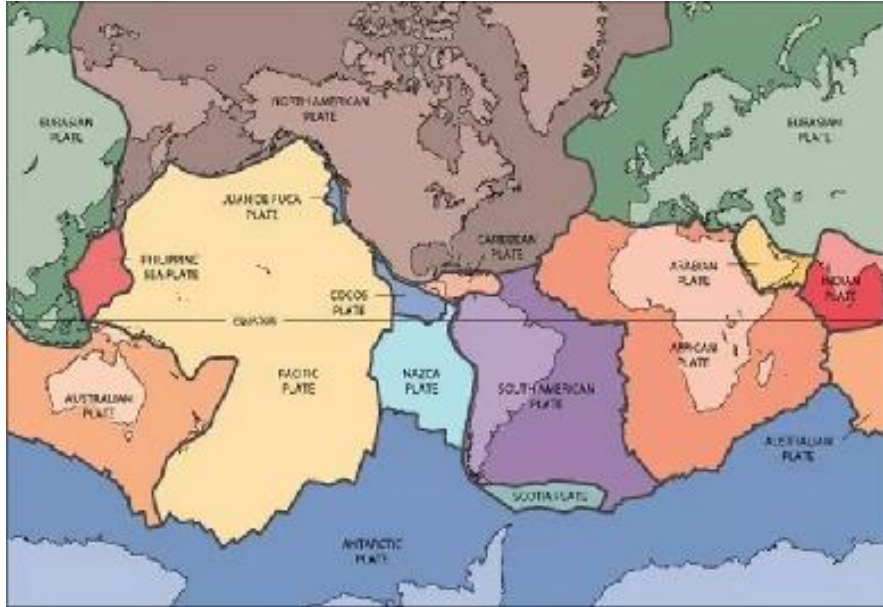
The list of Earth's minor plates includes the Arabian Plate, Caribbean Plate, Cocos Plate, Nazca Plate, Philippine Plate, Scotia Plate, and more. There are also many smaller plates throughout the world.

### **When did plate tectonics start?**

While the Earth is estimated to be 4.54 billion years old, oceanic crust is constantly recycled at subduction zones. That means the oldest seafloor is still only about 200 million years old. The oldest ocean rocks are found in the northwestern Pacific Ocean and the eastern Mediterranean Sea. Fragments of continental crust are much older, with large chunks at least 3.8 billion years old found in Greenland.

With clues left behind in rocks and fossils, geoscientists can reconstruct the past history of Earth's continents. Most scientists think modern plate tectonics took over from earlier planetary development about 3 billion years ago, based on ancient magmas and

minerals preserved in rocks from that period. However, researchers have found evidence that plate tectonics could have been active for as long as 4 billion years, according to a 2020 article in Discover Magazine.



*Some of the major modern-day plates under our feet. Plate tectonics is an ongoing process, so long in the future these plates could be as unrecognizable as Earth's surface was a billion years ago.*  
 (Image credit: USGS)

"We don't really know when plate tectonics as it looks today got started, but we do know that we have continental crust that was likely scraped off a down-going slab [a tectonic plate in a subduction zone] that is 3.8 billion years old," Van der Elst said. "We could guess that means plate tectonics was operating, but it might have looked very different from today."

As the continents jostle around the Earth, they occasionally come together to form giant supercontinents or a single landmass. One of the earliest big supercontinents, called Rodinia, assembled about 1 billion years ago. Its breakup is linked to a global glaciation called Snowball Earth.

A more recent supercontinent called Pangaea formed about 300 million years ago. Africa, South America, North America and Europe nestled closely together, leaving a characteristic pattern of fossils and rocks for geologists to decipher once Pangaea broke apart. The puzzle pieces left behind by Pangaea, from fossils to the matching shorelines along the Atlantic Ocean, provided the first hints that the Earth's continents move.

### **Additional resources**

- Delve deeper into plate tectonics with this [USGS online booklet](#).
- Watch "[How Do We Know Plate Tectonics Is Real?](#)", courtesy of the PBS It's Okay to Be Smart YouTube channel.
- [Model the process of plate tectonics](#) using graham crackers with the U.S. Space & Rocket Center!

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## Poetry for Today

### Wallace Stevens (1879 –1955)



An American modernist poet, A Stevens was born in Reading, PA, educated at Harvard and then New York Law School, and he spent most of his life working as an executive for an insurance company in Hartford, CT. He won the Pulitzer Prize for Poetry for his *Collected Poems* in 1955.

His best-known poems include "The Auroras of Autumn", "Anecdote of the Jar", "Disillusionment of Ten O'Clock", "The Emperor of Ice-Cream", "The Idea of Order at Key West", "Sunday Morning", "The Snow Man", and "Thirteen Ways of Looking at a Blackbird".

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#### *The Idea of Order at Key West*

She sang beyond the genius of the sea.  
The water never formed to mind or voice,  
Like a body wholly body, fluttering  
Its empty sleeves; and yet its mimic motion  
Made constant cry, caused constantly a cry,  
That was not ours although we understood,  
Inhuman, of the veritable ocean.

The sea was not a mask. No more was she.  
The song and water were not medleyed sound  
Even if what she sang was what she heard.  
Since what she sang was uttered word by word.  
It may be that in all her phrases stirred  
The grinding water and the gasping wind;  
But it was she and not the sea we heard.

For she was the maker of the song she sang.  
The ever-hooded, tragic-gestured sea

Was merely a place by which she walked to sing.  
Whose spirit is this? we said, because we knew  
It was the spirit that we sought and knew  
That we should ask this often as she sang.

If it was only the dark voice of the sea  
That rose, or even colored by many waves;  
If it was only the outer voice of sky  
And cloud, of the sunken coral water-walled,  
However clear, it would have been deep air,  
The heaving speech of air, a summer sound  
Repeated in a summer without end  
And sound alone. But it was more than that,  
More even than her voice, and ours, among  
The meaningless plungings of water and the wind,  
Theatrical distances, bronze shadows heaped  
On high horizons, mountainous atmospheres  
Of sky and sea.

It was her voice that made  
The sky acutest at its vanishing.  
She measured to the hour its solitude.  
She was the single artificer of the world  
In which she sang. And when she sang, the sea,  
Whatever self it had, became the self  
That was her song, for she was the maker. Then we,  
As we beheld her striding there alone,  
Knew that there never was a world for her  
Except the one she sang and, singing, made.

Ramon Fernandez, tell me, if you know,  
Why, when the singing ended and we turned  
Toward the town, tell why the glassy lights,  
The lights in the fishing boats at anchor there,  
As night descended, tilting in the air,  
Mastered the night and portioned out the sea,  
Fixing emblazoned zones and fiery poles,  
Arranging, deepening, enchanting night.

Oh! Blessed rage for order, pale Ramon,  
The maker's rage to order words of the sea,  
Words of the fragrant portals, dimly-starred,  
And of ourselves and of our origins,  
In ghostlier demarcations, keener sounds.

***Anecdote of the Jar***

I placed a jar in Tennessee,  
And round it was, upon a hill.  
It made the slovenly wilderness  
Surround that hill.

The wilderness rose up to it,  
And sprawled around, no longer wild.  
The jar was round upon the ground  
And tall and of a port in air.

It took dominion everywhere.  
The jar was gray and bare.  
It did not give of bird or bush,  
Like nothing else in Tennessee.

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### ***Sunday Morning***

#### **I**

Complacencies of the peignoir, and late  
Coffee and oranges in a sunny chair,  
And the green freedom of a cockatoo  
Upon a rug mingle to dissipate  
The holy hush of ancient sacrifice.  
She dreams a little, and she feels the dark  
Encroachment of that old catastrophe,  
As a calm darkens among water-lights.  
The pungent oranges and bright, green wings  
Seem things in some procession of the dead,  
Winding across wide water, without sound.  
The day is like wide water, without sound,  
Stilled for the passing of her dreaming feet  
Over the seas, to silent Palestine,  
Dominion of the blood and sepulchre.

#### **II**

Why should she give her bounty to the dead?  
What is divinity if it can come  
Only in silent shadows and in dreams?  
Shall she not find in comforts of the sun,  
In pungent fruit and bright, green wings, or else  
In any balm or beauty of the earth,  
Things to be cherished like the thought of heaven?  
Divinity must live within herself:  
Passions of rain, or moods in falling snow;  
Grievings in loneliness, or unsubdued  
Elations when the forest blooms; gusty

Emotions on wet roads on autumn nights;  
All pleasures and all pains, remembering  
The bough of summer and the winter branch.  
These are the measures destined for her soul.

### **III**

Jove in the clouds had his inhuman birth.  
No mother suckled him, no sweet land gave  
Large-mannered motions to his mythy mind  
He moved among us, as a muttering king,  
Magnificent, would move among his hinds,  
Until our blood, commingling, virginal,  
With heaven, brought such requital to desire  
The very hinds discerned it, in a star.  
Shall our blood fail? Or shall it come to be  
The blood of paradise? And shall the earth  
Seem all of paradise that we shall know?  
The sky will be much friendlier then than now,  
A part of labor and a part of pain,  
And next in glory to enduring love,  
Not this dividing and indifferent blue.

### **IV**

She says, "I am content when wakened birds,  
Before they fly, test the reality  
Of misty fields, by their sweet questionings;  
But when the birds are gone, and their warm fields  
Return no more, where, then, is paradise?"  
There is not any haunt of prophecy,  
Nor any old chimera of the grave,  
Neither the golden underground, nor isle  
Melodious, where spirits gat them home,  
Nor visionary south, nor cloudy palm  
Remote on heaven's hill, that has endured  
As April's green endures; or will endure  
Like her remembrance of awakened birds,  
Or her desire for June and evening, tipped  
By the consummation of the swallow's wings.

### **V**

She says, "But in contentment I still feel  
The need of some imperishable bliss."  
Death is the mother of beauty; hence from her,  
Alone, shall come fulfilment to our dreams  
And our desires. Although she strews the leaves



Of sure obliteration on our paths,  
The path sick sorrow took, the many paths  
Where triumph rang its brassy phrase, or love  
Whispered a little out of tenderness,  
She makes the willow shiver in the sun  
For maidens who were wont to sit and gaze  
Upon the grass, relinquished to their feet.  
She causes boys to pile new plums and pears  
On disregarded plate. The maidens taste  
And stray impassioned in the littering leaves.

## **VI**

Is there no change of death in paradise?  
Does ripe fruit never fall? Or do the boughs  
Hang always heavy in that perfect sky,  
Unchanging, yet so like our perishing earth,  
With rivers like our own that seek for seas  
They never find, the same receding shores  
That never touch with inarticulate pang?  
Why set the pear upon those river-banks  
Or spice the shores with odors of the plum?  
Alas, that they should wear our colors there,  
The silken weavings of our afternoons,  
And pick the strings of our insipid lutes!  
Death is the mother of beauty, mystical,  
Within whose burning bosom we devise  
Our earthly mothers waiting, sleeplessly.

## **VII**

Supple and turbulent, a ring of men  
Shall chant in orgy on a summer morn  
Their boisterous devotion to the sun,  
Not as a god, but as a god might be,  
Naked among them, like a savage source.  
Their chant shall be a chant of paradise,  
Out of their blood, returning to the sky;  
And in their chant shall enter, voice by voice,  
The windy lake wherein their lord delights,  
The trees, like serafin, and echoing hills,  
That choir among themselves long afterward.  
They shall know well the heavenly fellowship  
Of men that perish and of summer morn.  
And whence they came and whither they shall go  
The dew upon their feet shall manifest.

## VIII

She hears, upon that water without sound,  
A voice that cries, "The tomb in Palestine  
Is not the porch of spirits lingering.  
It is the grave of Jesus, where he lay."  
We live in an old chaos of the sun,  
Or old dependency of day and night,  
Or island solitude, unsponsored, free,  
Of that wide water, inescapable.  
Deer walk upon our mountains, and the quail  
Whistle about us their spontaneous cries;  
Sweet berries ripen in the wilderness;  
And, in the isolation of the sky,  
At evening, casual flocks of pigeons make  
Ambiguous undulations as they sink,  
Downward to darkness, on extended wings.

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## Jazz for Today

### Shelly Manne



Widely regarded as a most versatile and musical drummer, Shelly Manne (1920-1984) was a founding father of the West Coast jazz scene in the 1950s. Manne possessed a phenomenal technique, which he channeled into some of the most creative, lyrical

drumming ever heard. His solos were unique, sometimes humorous, and above all else, musical.

As a teenager, Manne played for bands on trans-Atlantic liners, and he made his recording debut with Bobby Byrne's band in 1939. After playing with Joe Marsala's combo, Bob Astor, Raymond Scott, Will Bradley and Les Brown, Manne joined the Coast Guard from 1942 until 1945. Following World War II, he went on the road with Stan Kenton's band, and soon found himself working with tenor saxophonist Charlie Ventura's sextet featuring Kai Winding on trombone, Lou Stein on piano and Buddy Stewart on vocals. Manne then joined Woody Herman's big band, and returned to the road with Kenton from 1950-51.

In addition to establishing the West Coast jazz movement with Howard Rumsey's Lighthouse All-Stars and Sonny Rollins, Manne assembled and led numerous groups under his own name. Among these were Shelly Manne and His Men, which featured trumpeter Stu Williamson, alto saxophonist Charlie Mariano, pianist Russ Freeman and bassist Leroy Vinnegar. Although this group recorded several albums for Contemporary Records, the most-often mentioned selection is Manne's rendition of Bud Powell's "Un Poco Loco," which features an extended, and very creative, drum solo.

A unique recording opportunity arose in 1956 when Manne teamed up with pianist Andre Previn and bassist Leroy Vinnegar to produce the first jazz album of a Broadway score. Their version of My Fair Lady became the best-selling jazz album for that year.

From 1960 to 1972 Manne operated his own nightclub, Shelly's Manne-Hole, in Hollywood. Although he performed there with his own groups as often as his busy schedule permitted, the club was host to almost every combo and big band that came through Hollywood during that time, frequently featuring other inspirational drummers such as Tony Williams and Elvin Jones.

*by James A. Strain*

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Shelly Manne & His Men: Speak Low – 1962

*Shelly Manne - Conte Candoli - Ritchie Kamuca - Russ Freeman - Monty Budwig - Shelly's Manne Hole - Los Angeles - Jazz ..*

<https://www.youtube.com/watch?v=xcDQjv3VQaE>

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Shelly Manne and His Men 'What is this thing called love' on Frankly Jazz

*Frankly Jazz was a half-hour television program produced in Los Angeles in the early 1960. Shelly Manne and his men play 'What is this thing called love' on this episode*

<https://www.youtube.com/watch?v=G5KkEkRqZEo>

Shelly Manne My Fair Lady

*Shelly Manne, André Previn, Leroy Vinnegar*

<https://www.youtube.com/watch?v=fNBy1fxdZjE>

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**Dick Cavett: Eggheaded TV Host**



*nostalgiacentral.com*

I'll let that last Oscar Peterson be a nice lead-in to the special genius of the coolest late night TV host ever.

Yale-educated Dick Cavett established his reputation as the most erudite of American talk show hosts in the late 1960s and early '70s. Although there were many contenders who took on Johnny Carson, the undisputed heavyweight champion of late-night TV, Cavett generally was considered the most successful of the pretenders to Carson's throne. Cavett's late-night talk show, *The Dick Cavett Show* (1968), ran on ABC, from 1968 to 1974, and then for an additional year on CBS.

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Don Rickles Hilarious Interview

<https://www.youtube.com/watch?v=hTQqogdQnmY>

Robin Williams on Working Through Depression

<https://www.youtube.com/watch?v=0XcWKMeVRww>

Natalie Wood On Winning The 'Worst Actress' Award

<https://www.youtube.com/watch?v=kN7AZsI6TCE>

Carol Burnett Discusses The Changes In Her Acting Style Over Time

[v](#)

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## **AI Transcription Service Gets \$14m Boost**

Pencils down, class. A virtual transcription assistant is here to make physical note taking obsolete.



*Fireflies.ai cofounders Krish Ramineni and Sam Udotong*  
*Image Credit: Fireflies.ai*

Elevate your enterprise data technology and strategy at Transform 2021.

Fireflies has raised \$14m, per VentureBeat, which it will use to expand services and hire more people.

The startup uses AI to record video meetings...

... and automatically transcribe the audio with 90% accuracy, the company says. It can also transcribe prerecorded audio.

On top of making Zoom meetings more accessible to employees who are deaf or hard of hearing, other handy features include:

- Integration with other platforms, like Slack, Dropbox, Zapier, and CRMs
- Fireflies is free until users hit 3k minutes
- Then teams can pay for monthly (\$10-\$19) or custom plans with more space and perks.

CEO Krish Ramineni told VentureBeat the tech was used by 200k+ organizations last year, during which revenue also jumped 3x.

That makes sense because digital meetings were necessary during the pandemic...

... and they're likely to stick around:

A study that surveyed 22k+ working-age Americans estimated 23% of workdays will stay remote, 4x more than before the pandemic.

Another found that ~81% of respondents want to stay home all or some days.

In March, Zoom still expected a 41%+ revenue jump this year, even as pandemic restrictions relaxed.

Bonus: Letting AI take your notes may reduce Zoom fatigue.

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Remote work is on the rise. With the need to manage distributed workforces, organizations have ramped up their usage of videoconferencing platforms. Global Market Insights predicts that the videoconferencing market will grow 19% between 2020 and 2026, reaching \$50 billion in value by 2026. Zoom alone now hosts 45 billion minutes of webinars a year.

Aiming to address a few of the pain points of videoconferencing, Fireflies provides note-taking tools and deep learning technologies like AI-powered transcriptions. Once invited to a meeting, the company's virtual agent begins transcribing in real time, with a search feature that lets users filter for action items and other key moments.

Krish Ramineni and Sam Udotong founded Fireflies in July 2016. The company launched its text-to-speech transcription service three years ago in October 2018, before the pandemic.

"While I was a product manager at Microsoft, I saw the potential of chat based conversational AI. However, the same use cases for voice were limited," Ramineni told VentureBeat via email. "The deep learning models weren't being applied to voice intelligence systems in the workplace and enterprise. Voice AI was getting smarter, more accurate, and ubiquitous. We saw the rapid rise of smart home devices like Alexa and Google Assistant. At the same time, we're spending dozens of hours in meetings at work everyday. This felt like a massive opportunity to bridge that gap and change the way we work inside meetings."

To use Fireflies, attendees send an invite to the email address "fred@fireflies.ai" or have Fireflies auto-join calls via a Google or Outlook calendar. On the calendar invite, as long as there's a webconferencing URL, Fireflies' agent joins and sends a recording and transcript a few minutes after the meeting. Recordings remain visible in Fireflies' web dashboard for posterity, and Fireflies can auto-populate customer relationship management software with meeting logs, recordings, and notes.

## **Competition**

Fireflies competes with a number of transcription solutions on the market, including Reason8, Otter, and Voicea. Like Fireflies, Voicea integrates with calendars and uses an AI assistant to capture notes. And Otter offers video captioning for platforms like Zoom, in addition to a range of organizational tools.

But perhaps because of its generous free plan, Fireflies says it's seen substantial growth during the pandemic. The company's entry-level account supports commenting, playlists, and calendar integrations and offers up to 3,000 minutes of team storage. The \$10 per month Pro plan and \$19 per month Business plan add minutes and features like topic tracking, custom speech models, API access, and admin controls.

Given the continued interest in videoconferencing, Fireflies is likely poised for growth. (Revenue grew 3 times in the last year as Fireflies' AI assistant took notes for over 2 million people across 200,000 organizations, according to Ramineni.) Video calls have made a lot of business travel nonessential, with 43% of frequent business travelers telling consultancy Oliver Wyman they expect to travel less even after the COVID-19 pandemic. And nearly 9 in 10 employees say that videoconferences reduce the time it

takes to complete their projects, resulting in operational savings thanks to more efficient collaboration.

“When we first designed Fireflies, we wanted it to work with the ecosystem of tools that we use every single day,” Ramineni said. “Deep work is about streamlining repetitive tasks, so that people don’t lose context while switching between meetings, calendars, emails, and collaboration apps. To be able to orchestrate and automate complex business workflows with just the sound of our voice is something we hope to make possible for every person in the workplace. It starts with democratizing voice-powered AI for everyday use cases like meeting notes.”

The series A round brings 50-employee Fireflies’ total raised to around \$19 million to date. The company previously closed a \$5 million seed round in October 2019 led by Canaan Partners; that round saw participation from angel investors including former Slack CPO April Underwood, former Slack CMO Bill Macaitis, and Salesforce director of search Susan Kimberlin.

### **VentureBeat**

VentureBeat's mission is to be a digital town square for technical decision-makers to gain knowledge about transformative technology and transact. Our site delivers essential information on data technologies and strategies to guide you as you lead your organizations. We invite you to become a member of our community, to access:

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### **The United States of Venture Capital**

In the very first scene of HBO’s “Silicon Valley,” Big Head complains, “Money [is] flying all over Silicon Valley, but none of it ever seems to hit us.”

Well, Big Head, it might be time for a move to Ann Arbor, Raleigh, or Atlanta.



*America's VC landscape is shifting. Literally.  
8bu*

According to a new Crunchbase report, ~\$161.5B of venture capital flowed into US companies in 2020.

What’s not surprising: California, Massachusetts, and New York made up 73.1% of that total, with California alone grabbing 52.2%.

Here's what might surprise you: 14 states -- including Colorado, Minnesota, and Washington -- saw at least \$1.5B in VC funding in 2020. Only 6 attracted that much in 2016.

With tech talent increasing and spreading across the country, secondary markets are getting hot (we previously covered VC funding in the midwest).

Especially for wolverines, tar heels, and peaches

- VC growth in Michigan, North Carolina, and Georgia is on fire. Between 2016 and 2020:
- Michigan saw venture funding spike ~886% to \$3.1B
- North Carolina saw it jump ~410% to \$4.1B
- Georgia's grew 142%+ to \$2B

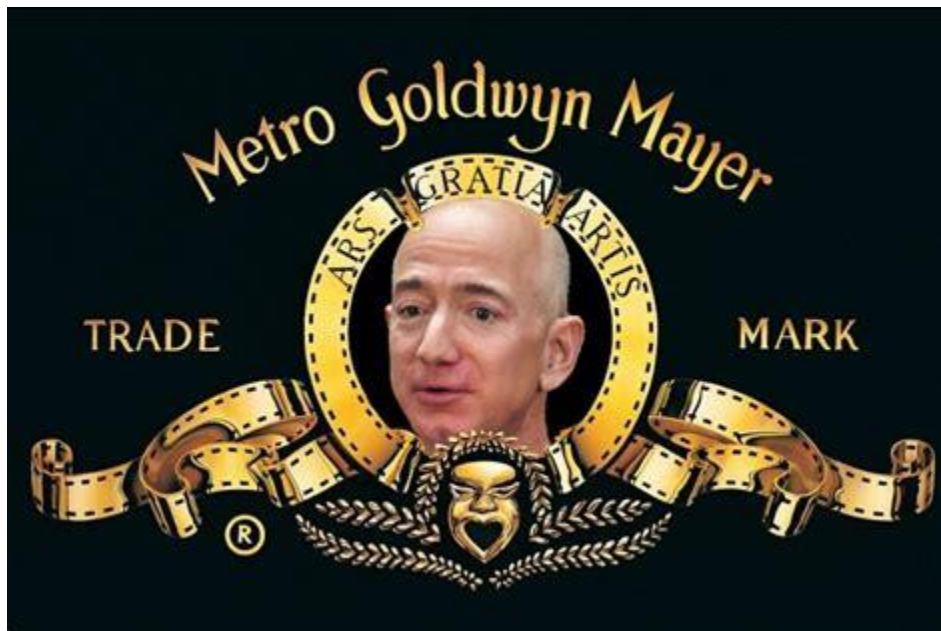
Some VCs are specifically focusing on entrepreneurial regions that don't already have a TV show about them, like Panoramic with its new \$300m fund.

Who knows, soon we might see a show about startups in Ann Arbor called Wolverine Den.

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## **Amazon Will Buy MGM for \$8.45 Billion.**

By Shelly Palmer



*bay.com.mt*

This is not a surprise, as MGM has been for sale for quite some time, and secrets about this purchase were not well-kept. Amazon is making this \$8.45 billion purchase for exactly the same reason Ted Turner purchased MGM for \$1.5 billion back in 1985: the library is epic!



There are 4,000 movies including "Gone With the Wind," "The Wizard of Oz," and "Singin' in the Rain," and more than 17,000 episodes of iconic television shows. Amazon spent more than \$11 billion on content last year and almost \$8 billion the year before, so \$8.45 billion for the MGM catalog seems like a bargain.

Considering the "war on big tech," I'm wondering about the Paramount Consent Decrees of 1948 (currently in a two-year sunset period that began in August 2020). That was the DOJ's weapon of choice for separating movie studio and movie theater ownership back in the day. I wonder what the DOJ will think about this... -s

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**The Weather Channel said dress  
for the mid 70s today.**



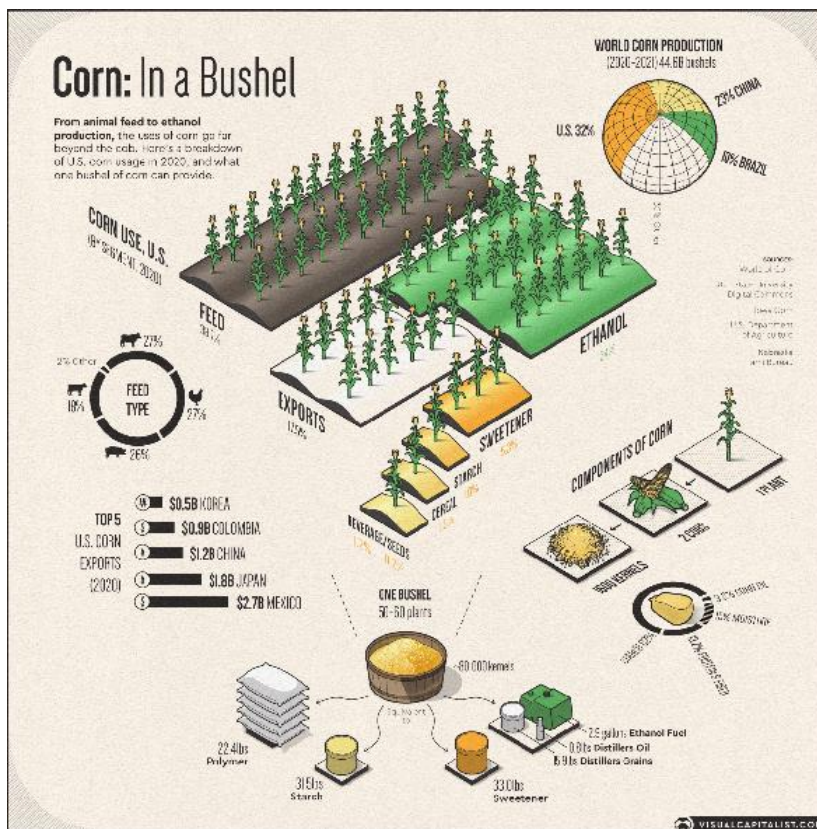
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## **Uses of Corn: Industries Affected by High Corn**

By Govind Bhutada

Graphics/Design: Harrison Schell

### **Corn Beyond the Cob**



Corn or maize is the second most-produced crop in the world, and it's more than just a staple in our diets.

From the sweetener in our coffees to the ethanol that powers our vehicles, corn has hundreds of uses. Consequently, high corn prices have a domino effect that can affect many supply chains and possibly even increase the cost of our weekly groceries, especially if they include tortilla chips.

This infographic uses data from the National Corn Growers Association to break down U.S. corn use by segment in 2020, and the products that a bushel of corn can produce.

### The Uses of Corn in the U.S.

While corn on the cob is quite popular, not all corn is sweet. There are five major types of corn grown around the world, and each one differs in taste and uses. Of these, yellow dent corn or field corn accounts for the majority of commercial U.S. production.

Here's a breakdown of U.S. corn usage in 2020:

Segment	Bushels (mil)	% Usage
Feed	5,650	38.7%
Ethanol (Fuel)	3,875	26.6%
Exports	2,550	17.5%
Ethanol (Animal Feed)	1,075	7.4%
Sweeteners	780	5.3%
Starch	230	1.6%
Cereal/Other	215	1.5%

Beverages/Alcohol	170	1.2%
Seeds	30	0.2%
Total	14,575	100%

Corn accounts for more than 96% of U.S. feed grain use and production. As a result, animal feed makes up nearly 40% of the country’s corn usage. This is because corn is a rich source of carbohydrates, and in combination with protein from soybeans, it can make for an effective diet for livestock.

In the United States, federal mandates require vehicles to use a blend of gasoline and biofuels like ethanol—94% of which is produced from the starch in corn grain. Therefore, a large portion of U.S. corn goes into ethanol production.

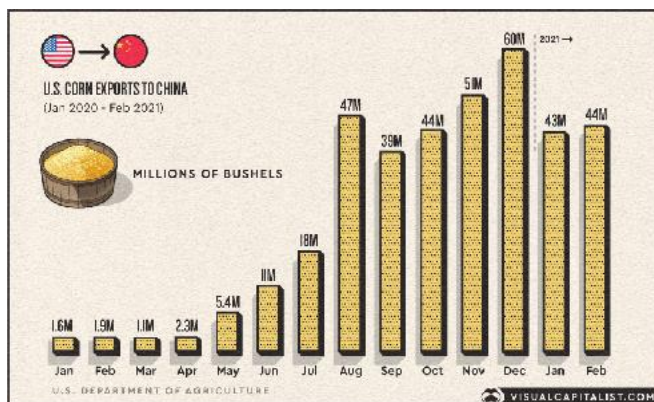
Interestingly, the ethanol distillation process produces a co-product known as dried distillers grain, which serves as low-cost, protein-rich animal feed for livestock. On average, the U.S. ethanol industry produces around 90,000 tons of distillers grains each week.

Animal feed and ethanol production collectively make up around 73% of U.S. corn usage. Other uses of corn include the production of sweeteners, starch, cereal, and alcoholic beverages like whiskey.

### Breaking Down U.S. Corn Exports

The U.S. is the world’s largest producer and exporter of corn and accounted for roughly 36% of exports in 2020.

Up until 2019, the majority of U.S. corn exports went to Mexico, Japan, and Colombia. China wasn’t among the top 10 destinations, but this changed in 2020.

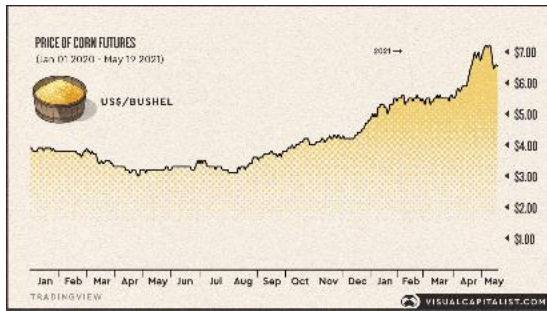


Between January 2020 and 2021, U.S. corn exports to China increased exponentially, reaching an all-time high in December. China’s massive import appetite is because of a shortage of domestic supplies amid rising demand for feed from its recovering hog-herd, which was hit by the African swine fever in 2018.

Consequently, China became the third-largest importer of U.S. corn in 2020 after Mexico and Brazil. What’s more, the U.S. Department of Agriculture projects that China’s corn imports in 2021 will be much higher than 2020 levels, and the majority of those will be sourced from the United States.

### The Corn Price Boom

In addition to a drought-induced yield cut in Brazil, rising demand from China has driven corn prices to their highest level in the last eight years.



Since the beginning of 2020, corn prices have increased 68% and stand at around \$6.50 per bushel as of May 19th.

The rise in corn prices is likely to affect several industries and could translate into higher prices for our groceries, including cereals, taco shells, and corn syrups. Additionally, it could also push up the price of gas due to its key role in ethanol production.

### **Corn, in a Bushel**

In a world where commodities like corn are often taken for granted, it's important to think about how valuable it can be.

A single bushel of corn can provide 33 lbs of sweetener, 31.5 lbs of starch, or 22.4 lbs of polymers. It's also enough to produce around 3 gallons of ethanol fuel and 16 lbs of distillers dried grains for animal feed.

The uses of corn go far beyond the cob, and just like other raw materials, it supports many industries that make modern life possible.

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## **Game Changers**

**Hitch a Ride on Spaceship Two VSS Unity's Third Spaceflight!**

**Coming Up...**

***You too Can Enjoy 270 Seconds of Zero G for Only \$250,000***



*The view from Virgin Galactic's VSS Unity space plane during its third crewed spaceflight, which took place on May 22, 2021.*

*(Image credit: Virgin Galactic)*

A dramatic video lets us all fly along on Virgin Galactic's latest spaceflight, which occurred over the weekend.

<https://www.youtube.com/watch?v=c8dEwUD6fXs>

<https://www.youtube.com/watch?v=J5NY6fVGEQg>

<https://www.youtube.com/watch?v=BUi09sd9HsQ>

The VSS Unity SpaceShipTwo suborbital vehicle aced its third flight to the final frontier on Saturday morning (May 22), a test mission that was the first to lift off from Virgin Galactic's commercial hub, Spaceport America in New Mexico.

Later that day, the company released a video featuring highlights of the flight captured by cameras on Unity, on its carrier aircraft VMS Eve, and on the ground. For example, there's up-close footage of Unity separating from Eve and firing up its onboard rocket motor, which powers the winged vehicle to suborbital space.



*This screenshot from a Virgin Galactic video shows the company's VSS Unity vehicle firing up its rocket motor during its third test flight to suborbital space, on May 22, 2021.  
(Image credit: Virgin Galactic)*

We also get to see great shots of our home planet against the blackness of space — and hear the reaction of veteran pilots C.J. Sturckow and Dave Mackay as they take it all in.

"Wow, look at that view," one of them says in the video.

"Gorgeous," the other responds.

The 2.5-minute video also shows Unity's runway landing back at Spaceport America, which was celebrated by a cheering crowd that included billionaire Virgin Group founder Richard Branson.

Unity's first two spaceflights occurred in December 2018 and February 2019. Both of those test missions lifted off from Mojave Air and Space Port in southeastern California, near the headquarters of Virgin Galactic's manufacturing subsidiary, The Spaceship Company.

Unity will likely conduct several more test flights from Spaceport America. If those go well, the six-passenger space plane could begin flying paying customers by early next year, Virgin Galactic representatives said recently.

Virgin Galactic isn't the only company in the suborbital space tourism industry. Jeff Bezos' Blue Origin has similar aims, and its autonomous New Shepard vehicle is scheduled to fly its first customer on July 20. That person will be the winner of a seat auction that was up to \$2.8 million as of this afternoon (May 24).

It's unclear how much Blue Origin will normally charge for a New Shepard ride. Virgin Galactic has sold tickets most recently for \$250,000 apiece, and more than 600 people have booked a seat to date, according to the company.

**Even for those to whom a quarter of a million is chump change, it seems to me a pretty miserly return...but then what do I know?**

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