

**Animals farmed** Climate crisis

🕒 This article is more than **5 years old**

# 'In the sun they'd cook': is the US south-west getting too hot for farm animals?

As temperatures rise, farmers are being forced to adapt, experimenting with new breeds and cooling methods

Climate Countdown: The US is set to exit the Paris climate agreement on 4 November. [Read more](#) about what's at stake

## A message to our readers, at our planet's tipping point



Campaigns like this fund our work: can you help?

**1,377** of 20,000 acts of support

As temperatures spike, the Guardian is keeping the heat on those burning our planet for profit. That's thanks to our independence - unlike other major news outlets, we reject fossil fuel ad dollars, and we aren't owned by a billionaire or big corporation. Instead, readers power our work.

**Can you pitch in? It takes just 37 seconds to support our critical summer appeal. Even \$5 helps, but for the most impact (and to limit these annoying pop-ups!) consider a monthly gift. Thank you for protecting the free press - and our planet.**

☐ Support once from just \$1

We welcome support of any size, any time

☐ Support \$15/monthly

Recommended

✔ Far fewer asks for support

✔ Ad-free reading on all your devices

[About this content](#)**Chris Malloy in Phoenix**

Mon 2 Nov 2020 01.00 EST

 Prefer the Guardian on Google

**S**outh-west of Phoenix, [Arizona](#), in the hottest desert in North America, Beth and Tim Wilson use sprinklers to cool their 300 pigs. Nearby, the Adams Natural Meats bison ranch employs shades and misters. North of the city, chicken farmer Dave Jordan says he cannot put his 10,000 birds out to pasture.

“If they were out in the sun, they would just get cooked.”

Animal agriculture accounts for one-third of the US south-west’s agricultural revenue. Like the rest of the world, however, the region is changing. Between

## A message to our readers, at our planet’s tipping point



**Campaigns like this fund our work: can you help?**

**1,377** of 20,000 acts of support

As temperatures spike, the Guardian is keeping the heat on those burning our planet for profit. That’s thanks to our independence – unlike other major news outlets, we reject fossil fuel ad dollars, and we aren’t owned by a billionaire or big corporation. Instead, readers power our work.

**Can you pitch in? It takes just 37 seconds to support our critical summer appeal. Even \$5 helps, but for the most impact (and to limit these annoying pop-ups!) consider a monthly gift. Thank you for protecting the free press – and our planet.**

Support once from just \$1

We welcome support of any size, any time

Recommended

Support \$15/monthly

- ✔ Far fewer asks for support
- ✔ Ad-free reading on all your devices

her Freedom Rangers require cooling. So Kennedy sets sprinklers upwind, and constructs poultry houses amid pastures where misty breezes blow through.

Despite her efforts, her chickens have been growing slower in hotter, drier recent years. She thinks this might be due to heat stress. “When an animal becomes hot, just like when you become hot, you don’t want to eat very much,” says Tami Brown-Brandl, an agricultural engineer at the University of Nebraska-Lincoln.

In response to increased internal temperatures, animals eat less, drink more, have lower fertility rates and experience higher mortality rates. When heat-stressed, poultry drink two to four times the water they normally do. Pigs, meanwhile, cannot sweat and begin to feel heat stress at about 21C (70F) - Phoenix averaged 37.2C (99.1F) in August 2020 - meaning the pigs eat less and their feed spoils more quickly.

## A message to our readers, at our planet's tipping point



**Campaigns like this fund our work: can you help?**

**1,377** of 20,000 acts of support

As temperatures spike, the Guardian is keeping the heat on those burning our planet for profit. That's thanks to our independence - unlike other major news outlets, we reject fossil fuel ad dollars, and we aren't owned by a billionaire or big corporation. Instead, readers power our work.

**Can you pitch in? It takes just 37 seconds to support our critical summer appeal. Even \$5 helps, but for the most impact (and to limit these annoying pop-ups!) consider a monthly gift. Thank you for protecting the free press - and our planet.**

Support once from just \$1

We welcome support of any size, any time

Recommended

Support \$15/monthly

- ✓ Far fewer asks for support
- ✓ Ad-free reading on all your devices

📷 A livestock farmer in Arizona fills up a water tank for his animals to drink from last month. Once upon a time, rain water would have been sufficient. Photograph: Stephanie Keith/Reuters

For livestock to thrive, ranchers employ many strategies. A crucial one is developing herds that can handle the heat.

Tim Petersen, a partner in Arizona Grass Raised Beef, runs cattle on 81,000 hectares (200,000 acres), and has bred his herd for heat and drought tolerance using four main cattle types. Gregg Vinson, who ranches cattle in the Sonoran and Chihuahuan deserts, has developed a similarly heat-tolerant herd in part by incorporating cattle with select arid-adapted bloodlines. Both herds have adapted to desert sun over time and can flourish with minimal active management. "Right now, with record temperatures, our cattle are great," Vinson said in August.

Vinson's neighbor raises Angus - the most popular cattle breed in the US. In

## A message to our readers, at our planet's tipping point



**Campaigns like this fund our work: can you help?**

**1,377** of 20,000 acts of support

As temperatures spike, the Guardian is keeping the heat on those burning our planet for profit. That's thanks to our independence - unlike other major news outlets, we reject fossil fuel ad dollars, and we aren't owned by a billionaire or big corporation. Instead, readers power our work.

**Can you pitch in? It takes just 37 seconds to support our critical summer appeal. Even \$5 helps, but for the most impact (and to limit these annoying pop-ups!) consider a monthly gift. Thank you for protecting the free press - and our planet.**

Support once from just \$1

We welcome support of any size, any time

Recommended

Support \$15/monthly

- ✔ Far fewer asks for support
- ✔ Ad-free reading on all your devices

Some of the turkeys were supposed to have been raised in the metro Phoenix area by an urban farmer. But that farmer had news for his clients. He was going to have to send the birds outside town, to Top Knot. It turns out that Phoenix was simply too hot for them.

Sign up for the [Animals farmed monthly update](#) to get a roundup of the best farming and food stories across the world and keep up with our investigations. You can send us your stories and thoughts at [animalsfarmed@theguardian.com](mailto:animalsfarmed@theguardian.com)

## A message to our readers, at our planet's tipping point



Campaigns like this fund our work: can you help?

**1,377** of 20,000 acts of support

As temperatures spike, the Guardian is keeping the heat on those burning our planet for profit. That's thanks to our independence - unlike other major news outlets, we reject fossil fuel ad dollars, and we aren't owned by a billionaire or big corporation. Instead, readers power our work.

**Can you pitch in? It takes just 37 seconds to support our critical summer appeal. Even \$5 helps, but for the most impact (and to limit these annoying pop-ups!) consider a monthly gift. Thank you for protecting the free press - and our planet.**

Support once from just \$1

We welcome support of any size, any time

Recommended

Support \$15/monthly

- ✓ Far fewer asks for support
- ✓ Ad-free reading on all your devices