

# science+health

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On Ted Turner's vast Flying D Ranch in Montana, bison grazed much as they did before the arrival of European settlers. Turner is the largest private owner of bison in the United States.

## RANCHER BELIEVES WE CAN SAVE BISON BY EATING THEM

Story and photos by JOSEPHINE MARCOTTY and DAVE HAGE • Star Tribune staff writers

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"It's the only way to bring buffalo back in a meaningful way," said O'Brien, who 18 years ago turned his cattle operation over to a herd of buffalo that live and die on their native grasslands, just as nature intended. "Without money flowing in and out, it will fail."

For 300,000 years, bison were a keystone species of the western United States. They grazed across lands that stretched from southern Canada to northern Mexico, thundering across the plains in numbers that stunned the Europeans who first encountered them.

But by a hundred years ago they were almost extinct, their vast numbers decimated by a mere two centuries of hunting and, at the end, a calculated plan of extermination by the federal government.

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Bison carcasses hung in the Wild Idea processing plant in Rapid City, S.D. The ranch fully processes its own meat.

in the fight to bring them back. "An animal that shaped the landscape and provided a livelihood for entire societies became almost nonexistent."

Now, a 10-year campaign by conservationists, Indian tribes and the federal government to bring this "forgotten" wild animal back to its native lands is gaining traction. Late last year the descendants of some of Yellowstone's wild bison were trucked to northern Montana, where they were joyfully greeted by the Assiniboine and Sioux Indian tribes at the Fort Peck Reservation. The Department of the Interior last summer issued a long-range plan to find federal lands suitable for wild herds, and the American Prairie Reserve, a privately held prairie restoration project in Montana, is slowly growing and adding buffalo as it goes.

But the buffalo were never really gone. In a ranching

See **BISON** on SH4 ►

## Plague sweeping the planet: Accidents

In 2013, accidental injury killed 3.5 million people, behind only heart disease and stroke.

By JEREMY N. SMITH • New York Times

Worried about what to worry about? Accidents should move higher up your list.

Worldwide, road injuries kill more people than AIDS. Falls kill nearly three times as many people as brain cancer. Drowning claims more lives than mothers dying in childbirth. Both fire and poisonings have many times more fatal victims than natural disasters. In 2013, the combined death toll from all unintentional injuries was 3.5 million people. Only heart disease and stroke were greater killers.

These findings, published late last year in the British medical journal the Lancet, are from the "Global Burden of Disease" study, an international collaboration led by the Institute for Health Metrics and Evaluation at the University of Washington, which tracks the annual toll of 240 causes of death for men and women in 20 age groups across 188 countries.



JOHANNA GOODMAN • New York Times

The study is not morbid fascination. Look beneath top-level results and you see huge variations among countries that are economic peers. This means that some countries have figured out better ways to curb accidental deaths — and that other countries might be able to follow suit.

In France and Spain, according to See **ACCIDENTS** on SH2 ►

**THE TOLL**  
1.4M die annually in transit  
372,000 drown each year  
98,000 died of poisoning in 2013

## Feed 'em peanuts early to head off allergy, study finds

By ANDREW POLLACK  
New York Times

Turning what was once conventional wisdom on its head, a new study suggests that many, if not most, peanut allergies can be prevented by feeding young children food containing peanuts beginning in infancy, rather than avoiding such foods.

About 2 percent of American children are allergic to peanuts, a figure that has more than quadrupled since 1997 for reasons that are not entirely clear. There have also been big increases in other Western countries. For some people, even traces of peanuts can be life-threatening.

An editorial published last week in the New England Journal of Medicine, along with the study, called the results "so compelling" and the rise of peanut allergies "so alarming" that guidelines for how to feed infants at risk of peanut allergies should be revised soon.

The study "clearly indicates that the early introduction of peanut



The findings may explain in part the sharp rise of allergies in countries where parents have avoided giving peanuts to babies.

StarTribune photo illustration

dramatically decreases the risk of development of peanut allergy," said the editorial, by Dr. Rebecca S. Gruchalla of the University of Texas Southwestern Medical Center and Dr. Hugh A. Sampson of the Icahn School of Medicine at Mount Sinai in New York City.

In the study, conducted in London, infants 4-11 months old who were deemed at high risk of developing a peanut allergy were randomly assigned either to be regularly fed food that contained peanuts or to be denied such food. These feeding patterns continued until the

See **PEANUTS** on SH2 ►



A specially designed hoist allows Jerry Blanks to kill bison humanely in the pasture at the O'Briens' ranch. This, Blanks said, is the best way the bison can die: with their herd right up until their last breath.

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The question is how to pay for the land and the herds, and one answer is to harvest some bison for meat.

Besides, without predators — the wolves, bears, mountain lions and humans that once kept their numbers in check — something will have to eat them. And that means us.

Today the bison meat business is worth about \$300 million, a tiny fraction of the beef industry, but demand and prices are rising fast. The question that has buffalo producers and those in the conservation movement eyeing each other warily is how the animals will be raised — as managed livestock, wild animals or something in between?

"The human footprint has to be a factor," said Aune. The question is "what level of human footprint do you accept?"

## Harvest day

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It all starts with the truck, an "in-field slaughter operation." Tucked inside are the knives, saws and hoists necessary to take apart a 1,000-pound animal in about 45 minutes. In the back is a refrigerated compartment that can hold a dozen stripped carcasses.

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in hand and went off to find O'Brien's herd of 350 buffalo. When he first took on the job eight years ago, Blanks was following what he calls "a primeval drive to hunt." That's all changed.

"Now I can see why the Indians held them in such reverence," he said. Over the years he's developed a respectful patience as he drives the pickup slowly through the herd, looking for an animal that is the right age, the right size, and in just the right spot. After careful research he's found the right bullet, one that penetrates the skull, but won't blow through the other side — a 30 caliber, all copper. This, he said, is the best way the bison can die: living in their herd on their native land right up until their last breath.

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When the smell of warm blood drifts toward the bison watching the scene, their nostrils flare as they raise their noses in the air to catch the scent.

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Slowly, he drives back up the hill with the dead buffalo swaying in the air behind the truck, to where the slaughter truck waits.

By 4 p.m., the crew has killed



At Ted Turner's Flying D Ranch in Montana, a bull waited as the herd was rounded up in a corral. A young wrangler at the ranch directed other bison in a chute for weighing. For more photos, [go to startribune.com/galleries](http://go.startribune.com/galleries).

and slaughtered eight buffalo, their stripped and headless carcasses hanging in the refrigerated section of the truck. Today Wild Idea is a thriving little business, with sales that have increased 30 percent in each of the last two years. But it's tiny — Dan O'Brien compares it to a pricey boutique winery. Unlike most of the beef and bison industries, it's vertically integrated. It starts with the living animal and ends with a cut of meat or finished ready-to-eat product packed in dry ice and shipped out via UPS. Wild Idea sells direct through its website, [wildideabuffalo.com](http://wildideabuffalo.com), to customers, restaurants and grocery stores willing to pay a premium price.

That structure is the only way the O'Briens could bypass the feedlots and slaughter houses, which are cruel to the animals, and environmentally destructive, he said.

"I wouldn't do that to my dog," he said.

More importantly, it's not necessary, he said. Bison evolved to eat only grass — about 30 pounds a day — and grass-fed bison meat is much lower than beef in fat, calories and cholesterol.

O'Brien's "messianic" goal, as he puts it, goes far beyond delivering boutique meat to an elite audience. Saving the bison also saves the prairie and a rich ecosystem that's on a par with the African Serengeti.

The bison's grazing spreads the seeds and replenishes the grasses. Healthy grasses provide a home for hundreds of birds, pollinators and deer — plus the coyotes and even wolves that rely on them in nature's endless food chain.

"Our product is species diversity," O'Brien said.

So far, he says, his buffalo are affecting 350,000 acres. That includes the 4,000 acres he owns, his partner's neighboring 5,000 acre ranch, an adjacent 70,000 acres of the Buffalo Gap National Grasslands where they have grazing rights, plus land owned by the Nature Conservancy and nearby tribes that sell their bison to him for slaughter.

## 'Catastrophic' model

But there is a long way to go. Today, there is not much left of the vast prairies that once stretched from the Mississippi to the Rockies. Every year more grasslands are converted into corn, soybeans and other crops — close to 40,000 square miles in the last half-decade alone.

Two-thirds of the corn in the United States is grown to feed livestock — poultry, pork, beef and buffalo — in feedlots. That, combined with a market driven by ever-higher federal mandates for ethanol, have made America's native prairies one of the most threatened ecosystems on Earth.

In short, said O'Brien, feedlots "are driving a commodity model that is catastrophic. If there's a sin, that's it."

But Wild Idea's bison are a rarity. The American Bison Association has 1,000 members, and about half raise grass-fed animals, said Dave Carter, executive director. About 80 to 90 percent of the 113,000 bison that are slaughtered each year end their lives in feedlots.

That's because customers demand it, bison producers say. Even philanthropist Ted Turner, who became the largest bison producer in the country in order to protect the species and preserve the land, finishes them in feedlots before trucking them to Colorado for slaughter.

At the Flying D near Bozeman, the largest of Turner's operations, the herd spends most of its life in buffalo heaven — 115,000 acres of sprawling meadows below the Spanish Peaks. They share this sweeping green land with elk, moose, grizzlies and even two packs of wolves that have recently taken up residence.

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Still, ranchers like Turner, struggling to survive in a volatile industry, can't ignore consumer tastes influenced by decades of industrial beef production.

Bison can taste different depending on where it's been raised, what it's been eating and what time of year it's been slaughtered. That doesn't always go over well with restaurants or consumers who expect all meat to be the same.

"It's part of the game to have a consistent product," said Danny Johnson, manager at the Flying D.

That's where feedlots come in. Though cattle are much more suited to feedlots, the added food — hay, oats and corn — puts weight on bison and gives them a layer of fat that they don't naturally have.

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Still, federal rules require that bison meat be free of the growth hormones and antibiotics that are routinely injected into commercial beef cattle to help them tolerate corn and close confinement. And they spend less time in feedlots because their growth maxes out more quickly than cattle.

Carter, of the bison association, said the industry is still figuring out what it's going to be.

"We learn every step of the way that these are unique animals, and sometimes the best management is the least management," he said.

O'Brien is still waiting for the rest of the industry to come around to his way of thinking — that the best management for American buffalo and its native prairie is no management at all.

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Jill and Dan O'Brien, partners in Wild Idea Buffalo Company, sell bison meat to finance their large conservation herds.

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