

# EXTRA!

FROM THE OLD FARMER'S ALMANAC



**PRIZEWINNING  
RECIPES**

**UNBOGGLED BY  
THE CRANBERRY**

**TEA FOR HEALTH—  
AND MORE!**

**THE GREATEST  
WEATHER  
PREDICTION OF  
ALL TIME**

**NOVEMBER 2019**

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The Greatest Weather Prediction of All Time



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Humor Me  
*Grins and groans from the Almanac*

### WHAT'S NEXT

See what we have in store for our December issue!



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# NOVEMBER

*Holidays, Fun Facts, and More*

## HOLIDAY HAPPENINGS

**Nov. 3:** Daylight Saving Time ends at 2:00 A.M.

**Nov. 5:** Election Day

**Nov. 11:** Veterans Day

**Nov. 11:** Remembrance Day (Canada)

**Nov. 28:** Thanksgiving Day

## WACKY TIMES

**Nov. 1–30:** Banana Pudding Lovers Month

**Nov. 1:** National Cook for Your Pets Day

**Nov. 3:** Zero-Tasking Day

**Nov. 16:** National Button Day

**Nov. 21:** World Hello Day

**Nov. 23:** Fibonacci Day

## ABOUT THIS MONTH

This month's name came from the Latin *novem*, "nine," because this was the ninth month of the early Roman calendar.

**Birthstones:** Topaz and Citrine



TOPAZ



CITRINE

**Birth Month Flower:** Chrysanthemum



## EYE ON THE SKY

### MOON PHASES

**First Quarter:** Nov. 4, at  
5:23 A.M. EST

**Full Beaver Moon:**  
Nov. 12, at  
8:34 A.M. EST

**Last Quarter:**  
Nov. 19, at 4:11 P.M. EST

**New Moon:**  
Nov. 26, at 10:06 A.M. EST

### SPECIAL EVENT

#### Nov. 11: Transit of Mercury

Mercury will pass directly between Earth and the Sun. Appropriately filtered telescopes or binoculars are necessary for eye-safe viewing. The transit will be visible from most of North America from 7:35 A.M. EST to 1:04 P.M. EST (4:35 A.M. PST to 10:04 A.M. PST; it will be in progress at sunrise in mid- to western North America).



TAP FOR MORE ABOUT MOON PHASES



TAP FOR MORE ABOUT NOVEMBER'S FULL MOON



### RHYME TIME

*A dreamy haze  
of light; a fair  
deceiver;*

*A ghost of  
summer's  
solstice, whose  
feigned smile*

*Half  
counterfeits  
the real; ah,  
false retriever!*

*Yet art a sweet  
consoler in  
thy guise.*

—“Indian Summer”  
by Stephen Henry  
Thayer, American  
poet (1839–1919)

## NOVEMBER'S QUIZ

November 9 is National Scrapple Day, celebrating a Pennsylvania Dutch dish usually made with ground pork scraps, cornmeal, and spices that are shaped into a loaf, chilled, and then sliced and fried. Which of the following regional dishes is also traditionally made from pork?

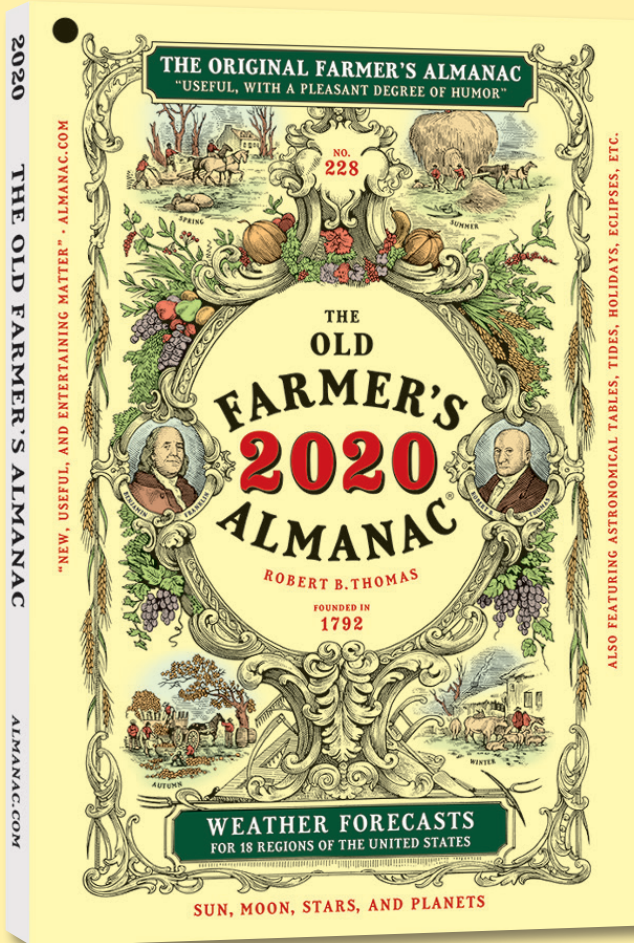
- A. Chislic
- B. Cioppino
- C. Étouffée
- D. Goetta



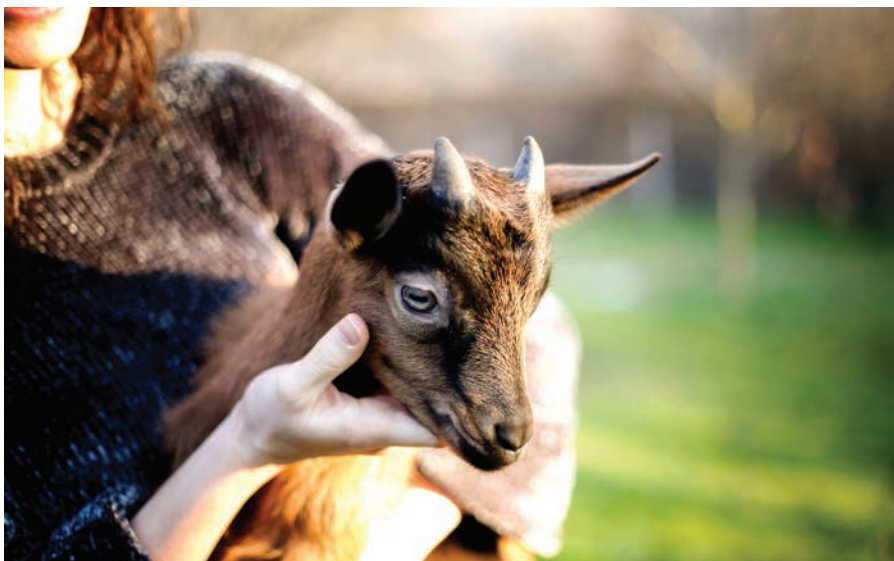
**Answer: D,** a German-American dish usually made of ground pork, oats, and spices prepared in much the same way as scrapple; especially popular in Cincinnati. (A. South Dakotan dish of Russian origin made from seasoned cubes of mutton, lamb, wild game, or beef deep-fried or grilled; B. Italian seafood stew, cooked with tomatoes and wine, that is common in San Francisco; C. Thick Cajun stew, often with crawfish or shrimp, that is served over rice and is a favorite in New Orleans and other parts of Louisiana.)

# Order Now!

## THE 2020 OLD FARMER'S ALMANAC



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## BEST DAYS TO DO THINGS

These November dates, deemed to be propitious in astrology, are based on the astrological passage of the Moon. However, consider all indicators before making any major decisions. —*Celeste Longacre*

### ON THE FARM

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Breed animals: 24, 25  
Castrate animals: 3–5  
Cut hay: 8–10  
Purchase animals: 15–17  
Set eggs: 12, 13  
Slaughter livestock: 24, 25  
Wean animals: 21, 25

### IN THE GARDEN

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Destroy pests and weeds: 8–10  
Graft or pollinate: 15–17  
Harvest aboveground crops: 1, 2, 29, 30  
Harvest belowground crops: 20, 21  
Mow to decrease growth: 24, 25  
Mow to increase growth: 8–10



Pick fruit: 20, 21  
Plant aboveground crops: 6, 7  
Plant belowground crops: 15–17  
Prune to discourage growth: 18, 19  
Prune to encourage growth: 8–10

## PERSONAL

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Advertise to sell: 11  
Ask for a loan: 24, 25  
Begin diet to lose weight: 21, 25  
Begin diet to gain weight: 7, 30  
Buy a home: 11, 29, 30  
Color hair: 11, 12  
Cut hair to discourage growth: 22, 23  
Cut hair to encourage growth: 6, 7  
Get married: 22, 23  
Have dental care: 20, 21  
Move (house/household): 13, 14  
Perm hair: 3–5  
Quit smoking: 21, 25  
Straighten hair: 26, 27  
Travel for pleasure: 18, 19  
Wean children: 21, 25

## AROUND THE HOUSE

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Bake: 15–17  
Brew: 24, 25  
Can, pickle, or make sauerkraut: 15–17  
Demolish: 24, 25  
Dry fruit/vegetables/meat: 18, 19  
End projects: 25  
Lay shingles: 18, 19  
Make jams/jellies: 6, 7  
Paint: 11, 12  
Start projects: 27  
Wash floors: 6, 7  
Wash windows: 8–10

## OUTDOORS

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Begin logging: 1, 2, 28–30  
Go camping: 26, 27  
Go fishing: 1–12, 26–30  
Set posts or pour concrete: 1, 2, 28–30



## GARDENING BY THE MOON'S SIGN

Use the November dates shown in the Moon's Astrological Place calendar below to find the best days for the following garden tasks:

**PLANT, TRANSPLANT, AND GRAFT:** Cancer, Scorpio, Pisces, or Taurus

**HARVEST:** Aries, Leo, Sagittarius, Gemini, or Aquarius

**BUILD/FIX FENCES OR GARDEN BEDS:** Capricorn

**CONTROL INSECT PESTS, PLOW, AND WEED:** Aries, Gemini, Leo, Sagittarius, or Aquarius

**PRUNE:** Aries, Leo, or Sagittarius. During a waxing Moon, pruning encourages growth; during a waning Moon, it discourages growth.

### THE MOON'S ASTROLOGICAL PLACE IN NOVEMBER

<b>1</b> Capricorn	<b>9</b> Aries	<b>17</b> Cancer	<b>25</b> Scorpio
<b>2</b> Capricorn	<b>10</b> Aries	<b>18</b> Leo	<b>26</b> Sagittarius
<b>3</b> Aquarius	<b>11</b> Taurus	<b>19</b> Leo	<b>27</b> Sagittarius
<b>4</b> Aquarius	<b>12</b> Taurus	<b>20</b> Virgo	<b>28</b> Capricorn
<b>5</b> Aquarius	<b>13</b> Gemini	<b>21</b> Virgo	<b>29</b> Capricorn
<b>6</b> Pisces	<b>14</b> Gemini	<b>22</b> Libra	<b>30</b> Capricorn
<b>7</b> Pisces	<b>15</b> Cancer	<b>23</b> Libra	
<b>8</b> Aries	<b>16</b> Cancer	<b>24</b> Scorpio	



TAP FOR  
MERCURY IN  
RETROGRADE  
DATES



TAP FOR  
NOVEMBER  
MOON PHASES



## MERCURY IN RETROGRADE

Sometimes the other planets appear to be traveling backward through the zodiac; this is an illusion. We call this illusion *retrograde motion*.

Mercury's retrograde periods can cause our plans to go awry. However, this is an excellent time to reflect on the past. Intuition is high during these periods, and coincidences can be extraordinary.

When Mercury is retrograde, remain flexible, allow extra time for travel, and avoid signing contracts. Review projects and plans at these times, but wait until Mercury is direct again to make any final decisions.

In the remainder of 2019, Mercury will be retrograde during **October 31–November 20**.

—Celeste Longacre





a superb opportunity to watch the Moon race across the eastern sky. As a bonus, it passes near several interesting stars and constellations during its 8-day sprint.

Our Moon Race begins on November 10 and 11 in a rather nondescript field of stars comprising the head of Cetus, the Whale. The nearly full Moon skims from right to left above the whale's head on these two nights.

One night later, on November 12, our satellite forms a distinctive triangle with two famous star clusters, the Pleiades and the Hyades. In Greek mythology, the seven Pleiades and five Hyades were half-sisters whose father was Atlas, the titan who is fated to forever hold up the heavens. If you have keen eyesight and wait for a dark night when no Moon is present, you might be able to see seven or more stars of the Pleiades cluster and five or more members of the Hyades.

By the next night, the Moon will have passed the Hyades to then sit close to the bright star Aldebaran, the Eye of the Bull in the constellation Taurus. Occasionally, when the Moon moves through this region of the sky, it passes right in front of Aldebaran, temporarily blocking it from view. This is known as an occultation. The next occultation of Aldebaran by the Moon won't occur until 2033.

The Moon—obviously shrinking from full—reaches the tip of one of Taurus's horns on November 14, when it also comes fairly close to Orion, the Hunter. Orion's Belt and the bright stars Betelgeuse and Rigel are easy to spot.

By November 15, the Moon is spending the first of two nights with Gemini, the Twins. It enters the constellation at the feet of Castor, who in Greek mythology was the mortal half-brother of immortal Pollux. When Castor died, Pollux begged their father Zeus to grant his half-brother immortality. Zeus agreed, placing them together in the heavens, hand-in-hand, for all eternity. On its second night in Gemini, the Moon is located near Pollux's waist.

The Moon ends its 8-day journey low in the sky on November 17. It shares the area with two horizon-hugging stars, bright Procyon and even brighter Sirius, the brightest of all stars. Take a good look at Sirius. When it's this low in the sky, it twinkles like crazy and may even flash colors, such as green, red, and blue!

*—Jeff DeTray*



### CALLING ALL COOKS!

Got a great recipe for an appetizer? Send it in to our **2020 Recipe Contest**, and you could win! Entries must be yours, original, and unpublished. Amateur cooks only, please. The deadline for entries is Friday, January 24, 2020. Enter at [Almanac.com/RecipeContest](https://Almanac.com/RecipeContest). Cash prizes will be awarded for first (\$300), second (\$200), and third (\$100) place and printed in the 2021 edition of *The Old Farmer's Almanac* as well as on [Almanac.com/ca](https://Almanac.com/ca).

# Prizewinning Recipes

Each year in *The Old Farmer's Almanac* and *Garden Guide*, we invite our audience to enter our Recipe Contests. We've covered tasty topics like savory pies, layer cakes, pumpkin, peanut butter, apples, and many more!

Here you'll find winners from our recent contests to give you an idea of the range of delicious recipes that we receive.



TAP FOR  
RECIPE

# Spiced Carrot Biscuits With Salted Caramel Butter

## SPICED CARROT BISCUITS WITH SALTED CARAMEL BUTTER

### BISCUITS:

- 3-1/2 cups all-purpose flour
- 1/2 cup brown sugar
- 1 tablespoon plus 2 teaspoons baking powder
- 1/2 teaspoon salt
- 1 teaspoon pumpkin pie spice
- 1 cup (2 sticks) butter
- 1-1/2 cups puréed cooked carrots
- 2/3 cup plus 1 tablespoon buttermilk, divided
- 1/3 cup golden raisins

### BUTTER:

- 1/2 cup (1 stick) butter, softened
- 1/4 cup thick caramel sauce (store-bought or homemade)
- pinch of salt

SHARE  
THIS  
RECIPE

Preheat oven to 425°F. Lightly grease a large baking sheet.

*For biscuits:* In a bowl, combine flour, sugar, baking powder, salt, and pumpkin pie spice. Cut in cold butter with a fork or pastry tool until mixture resembles coarse crumbs. Add carrots and 2/3 cup of buttermilk and stir just until combined.

Turn dough out onto a lightly floured work surface. Sprinkle dough with raisins. Knead 10 times. Roll dough to approximately a 1-inch thickness. Using a 2-1/2-inch round cutter, press out biscuits, rerolling dough as necessary.

Place biscuits on prepared baking sheet at least 1 inch apart. Bake for 20 minutes, or until golden brown. Brush tops with 1 tablespoon of buttermilk. Set aside.

*For butter:* In a bowl, beat together butter, caramel sauce, and salt until combined.

Serve biscuits with caramel butter on the side.

**Makes 12 biscuits.**

FOOD

 TAP FOR  
RECIPE

# Stuffed Mashed Potatoes





SHARE  
THIS  
RECIPE

## STUFFED MASHED POTATOES

- 2 pounds russet potatoes
- 1/4 cup (1/2 stick) butter
- 1/2 teaspoon salt
- 1/2 teaspoon garlic powder
- 1/4 teaspoon freshly ground black pepper
- 1/2 pound mozzarella cheese, cut into 12 pieces
- 3 ounces pepperoni, finely chopped
- 3 tablespoons seasoned bread crumbs

Preheat oven to 400°F. Wash and prick potatoes and bake for about 35 minutes, or until they can be pierced with a fork. Leave oven on and grease a 12-cup muffin tin.

While potatoes are hot, peel them. Put through a ricer or shred using a grater.

In a bowl, combine potatoes, butter, salt, garlic powder, and pepper and mix until butter has melted.

Fill each muffin cup about halfway with potato mixture. Place one piece of mozzarella in each cup. Divide pepperoni evenly between cups and top with remaining potatoes. Sprinkle bread crumbs on top.

Return to oven and bake for 10 to 12 minutes. Unmold immediately and serve.

**Makes 12 servings.**



FOOD

 TAP FOR  
RECIPE

# Bacon, Sausage, and Bean Soup

## BACON, SAUSAGE, AND BEAN SOUP

4 slices bacon

2 links sweet Italian turkey sausage, casings removed

1/4 teaspoon crushed red pepper flakes

1/2 cup chopped onion

1/4 cup chopped carrot

1/4 cup chopped celery

2 cloves garlic, minced

1 can (15 ounces) black beans, drained (mash 1/4 of them with a fork)

1 can (15 ounces) red kidney beans, drained (mash 1/4 of them with a fork)

1 can (14.5 ounces) reduced sodium chicken broth

1 can (14 ounces) diced tomatoes

2 tablespoons chopped fresh cilantro, plus more for garnish

1 tablespoon tomato paste

1 tablespoon fresh lime juice

1 teaspoon cumin

1/8 teaspoon cayenne pepper

1/2 cup sour cream

Cook bacon in a Dutch oven over medium heat until crisp. Remove and set aside on paper towels to drain. Crumble bacon when cool enough to handle.

Add sausage to the bacon drippings in Dutch oven and break up as it cooks. As sausage browns, sprinkle with red pepper flakes. When fully cooked, remove sausage and set aside.

Add onions, carrots, celery, and garlic to the Dutch oven and cook for 3 minutes, or until tender. Remove vegetables and set aside in a bowl.

Wipe Dutch oven and return sausage and vegetables to it, along with beans, broth, tomatoes, cilantro, tomato paste, lime juice, cumin, and cayenne. Add bacon and stir to combine. Bring mixture to a boil, reduce heat to low, and simmer uncovered for 10 minutes, or until thickened.

Ladle soup into bowls, top each with sour cream, and garnish with cilantro.

**Makes 4 to 6 servings.**

SHARE  
THIS  
RECIPE



GARDENING

# Unboggled by the Cranberry

*They're easy to grow at home!*

PHOTO: GRIGORII PISOTCKII/GETTY IMAGES

**B**y the beginning of November, nearly all of the cranberry crop should have been harvested. Millions and millions of the hard, little, tart, ruby berries grown in the bogs of Massachusetts, New Jersey, Wisconsin, Washington, Oregon, and the Maritime provinces of Canada will have been bagged fresh or earmarked for juice or canned sauce.

for your Thanksgiving dinner. A 10x5-foot plot will yield up to 10 pounds of delicious berries just in time for holiday sauce and desserts. Here's all you need to know to grow.

For best results, cranberries should be grown in full sun in a 50-50 mix of garden soil and peat moss. If your soil is sandy, remove the top 8 inches and line the

hardy to Zone 2, that sends out runners much like strawberries do. Each runner may grow up to 3 feet long and send up numerous uprights that bear thumbnail-size fruit.

Cranberries are best planted in late April through the end of May. Six 3-year-old plants spaced evenly throughout the bed will grow together to form a thick mat and should produce

## You don't need a bog to grow cranberries. They are a great addition to the home garden.

Cranberries are grown in bogs because these are constructed to protect the fruit: A bog can be quickly flooded when freezing weather is predicted, thus sparing the submerged blossoms and berries from spring and fall frosts.

Did you know that you don't need a bog to grow cranberries? In fact, they are a great addition to the home garden—and, come harvesttime, they are a surprise condiment

bottom of the bed with a sheet of 6-mil plastic.

Poke plenty of drainage holes in the plastic and then fill the bed with the soil mix. Scratch in 1/2 pound of 10-20-10 fertilizer and you are ready to plant.

The cranberry, *Vaccinium macrocarpon*, a North American native, is a member of the heath family and a relative of the blueberry and huckleberry. It is a low-growing evergreen,

during the first season.

A light mulch of sawdust or sand will help to root the runners. Water the new planting every day for 2 weeks and then as you would the rest of your garden. Flower buds open from late May to June and produce ripe fruit in late September to early October.

Fun to grow and easy to care for, cranberries are one crop that shouldn't bog down any gardener.

—George Lohmiller

LIVING NATURALLY



# Tea for Health— and More!

PHOTO: BAROL16/GETTY IMAGES

**A**fter water, tea (*Camellia sinesis*) is the world's most popular beverage.

You've no doubt seen references to the research suggesting that tea, especially unfermented (green) tea, may deliver many health benefits.

Researchers say that regular tea-drinking (2 or 3 cups per day) may help to lower cholesterol, manage blood sugar, promote weight loss, protect against several forms of cancer, boost immunity, and reduce inflammation.

Applied topically, tea can relieve the discomfort of rashes, stings, and hemorrhoids and may help to reduce acne flareups.

### **WHY GREEN TEA?**

The "fermentation" (actually, oxidation) processes that yield the many other forms of

tea deepen and alter the flavors of leaves, but they also remove some of the plant compounds ("phytochemicals") that deliver tea's health benefits.

### **WHICH TEA? WHICH FORM?**

Once you begin delving into the subject of tea, it's easy to get confused. Will it be loose (thick or thin?), powdered, bagged, brewed and bottled? Chai, citrus, or jasmine? A green tea extract? A tincture, a pill, a syrup, or a soda? What about a snack?

Why not start by brewing some loose green tea leaves from a specialty or health food store near you. If you live near an Asian market, you'll have a much larger choice. Buy small quantities and store them in airtight containers in the freezer to maintain their flavor

and potency.

By the way, if you want to maximize the health benefits of tea, drink it without milk. Proteins in the milk decrease the concentration of many of tea's beneficial phytochemicals.

### **HOW TO BREW**

Add a teaspoon of tea leaves to a cup of hot water. It's your choice as to whether to steep the leaves in a tea ball or other container or strain them after they've steeped. Some people even leave the tea leaves in and consume them along with the liquid.

The hotter the water (closer to boiling) and the longer the steeping, the more healthful will be the plant compounds that the water will extract. However, since some of these compounds are bitter, many tea lovers prefer a

**Why not start by brewing some loose green tea leaves from a specialty or health food store near you?**



brief steeping time for their sipping teas.

### TEA IN COOKING

What about liberating tea from the beverage category and using the leaves themselves in cooking? Many books on the market delve into the science and art of cooking with tea.

Try adding strong tea as an ingredient in meat or poultry marinades, soups, stocks, and gravies. Or add the reconstituted leaves

themselves to omelets, soups, or stir fries. Think of them as a leafy vegetable. Eating them adds nutrients and fiber to the medicinal punch that this plant delivers.

### A FEW OTHER USES FOR TEA

- The astringent properties of tea caused by substances called tannins make it a natural skin toner. It helps acne, too.
- Used as a final rinse, tea conditions and restores shine to hair.

- Dry tea leaves absorb odors as well as baking soda. Leave a few bags in the fridge or drop some into shoes, pocketbooks, and cars.

- Strong tea left in cooking pots overnight will remove burned-on food and stains.

- Cool tea sponged onto skin offers relief from poison ivy, hives, or insect bites. —Margaret Boyles

TAP TO READ MORE OF MARGARET BOYLES'S POSTS IN HER "LIVING NATURALLY" BLOG



WEATHER

# The Greatest Weather Prediction of All Time

*Or was it just a stroke of luck?*

PHOTO: JNE PHOTOS/GETTY IMAGES



**I**n December 1868,  
 Lieutenant S. M. Saxby of the British Navy notified  
 the London press that our world would be  
 visited by a gale of frightful violence and unprecedented  
 tides in the following year. Saxby named the day,  
 October 5, and the hour, 7:00 A.M.

Saxby based his prediction not on the simple instruments of the day but on astronomy. He observed that a lunar coincidence would place the Moon directly over Earth's equator on that date. With Moon and Sun exerting their maximum pull at the same time, he reasoned, unusually high tides would result—"and nothing more threatening, I say, can occur without a miracle."

Saxby's conclusions were refined by Frederick Allison of Halifax, Nova Scotia, who pinpointed the storm's landfall. Allison hardly endeared himself to the neighbors by announcing Halifax

harbor as the target.

As October 5 neared, Halifax citizens acted in very human ways. Many laughed at the "luny" notion of forecasting a hurricane 11 months in advance. Some saw doomsday a-coming and prayed for deliverance. Others began boarding up windows.

Unbeknownst to all, a tropical storm was prowling up the Atlantic toward Nova Scotia, right on schedule. A beast of the sea, it swished its tail at Nantucket Sound, but that island's newspaper later reported for October 4, 1869, "No material damage." Boston had a "short squall" at about 3:30 that afternoon, but

at sea, ships were being shattered.

The Saxby-Allison forecast had named Halifax as the target, with a 7:00 A.M. landfall. The prediction was amazingly close: within about 100 miles and 12 hours. The gale struck the preceding night. Instead of plunging along the easterly shore of Nova Scotia, it attacked the west. Up the Bay of Fundy it roared, blasting the shores of Maine and New Brunswick—a full-blown hurricane.

On the day following the storm, a traveler covering the 30 rural miles between Eastport and Calais, Maine,



counted 90 houses either blown apart or severely damaged. A crewless vessel was blown across Passamaquoddy Bay and up the St. Croix River, a distance of 30 miles.

However, the Saxby Gale was unique not for wind but for water. The rain, the tides, and the floods in most areas were without equal. Although the eye of the hurricane had remained at sea, the mid-Atlantic and New England states drowned. Rain gauges overflowed. At Goffstown, New Hampshire, nearly

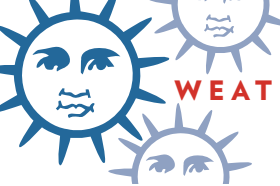
4-1/2 inches cascaded down on the town in only 2 hours. At Canton, Connecticut, an observer would not submit his rain report because he “measured 12.35 inches but did not think it could possibly have been so much.” It was!

An enormous wall of water surged along the Fundy coast. Fundy tides, of course, are famous, reaching heights of 45 and even 50 feet. During the Saxby Gale, the tide left its mark on Parrsboro buildings near the head of the bay—at

57-1/2 feet!

The amazingly accurate forecast has been called many things: a miracle of meteorology, one of the best near-misses in the history of prediction, a stroke of luck. Guesswork, however, appears to be ruled out by the laws of probability. What are the odds of anyone back in those days blindly picking a spot on the map where a hurricane will strike—and being accurate within 100 miles? It was and is one for the record books.

—T. R. LeMaire



# WEATHER FORECASTS

WHEN IN NOVEMBER THE WATER RISES,  
IT WILL SHOW ITSELF THE WHOLE WINTER.

## HOW WE MAKE OUR PREDICTIONS

We derive our weather forecasts from a secret formula that was devised by the founder of this Almanac, Robert B. Thomas, in 1792. Thomas believed that weather on Earth was influenced by sunspots, which are magnetic storms on the surface of the Sun.

Over the years, we have refined and enhanced this formula with state-of-the-art technology and modern scientific calculations. We employ three scientific disciplines to make our long-range predictions: solar science, the study of sunspots and other solar activity; climatology, the study of prevailing weather patterns; and meteorology, the study of the atmosphere. We predict weather trends and events by comparing solar patterns and historical weather conditions with current solar activity.

Our forecasts emphasize temperature and precipitation deviations from averages, or normals. These are based on 30-year statistical averages prepared by government meteorological agencies and updated every 10 years. Most-recent tabulations span the period 1981 through 2010.

We believe that nothing in the universe happens haphazardly, that there is a cause-and-effect pattern to all phenomena. However, although neither we nor any other forecasters have as yet gained sufficient insight into the mysteries of the universe to predict the weather with total accuracy, our results are almost always very close to our traditional claim of 80 percent.

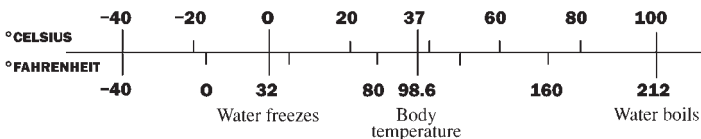


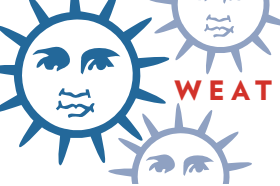
TAP TO FIND OUT THE WEATHER HISTORY OF THE DAY



LOVE ALL THINGS WEATHER? TAP FOR THE WEATHER FOLKLORE OF THE DAY

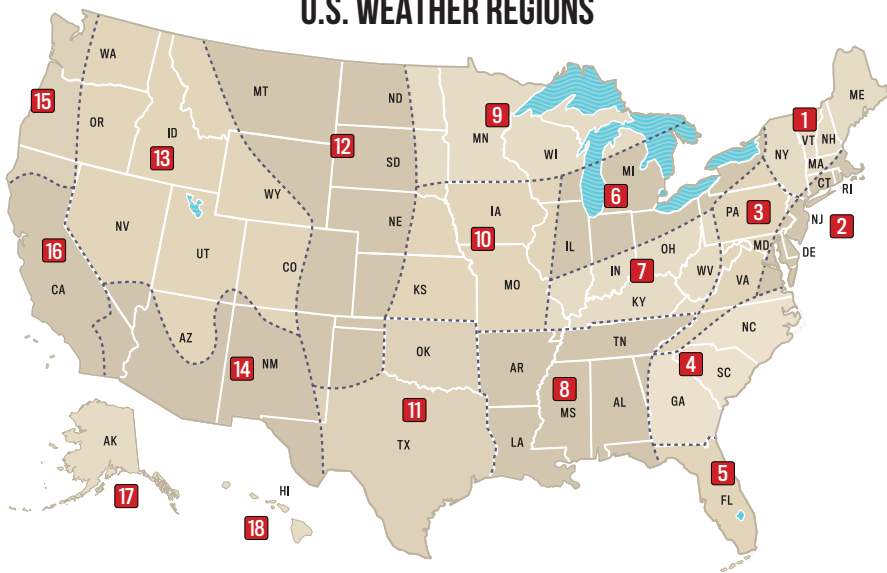
### CELSIUS-FAHRENHEIT TABLE





# WEATHER FORECASTS

## U.S. WEATHER REGIONS



## CANADIAN WEATHER REGIONS



CLICK HERE TO  
FIND NOVEMBER  
WEATHER  
PREDICTIONS  
FOR THE U.S.  
AND CANADIAN  
REGIONS





## MEET YOUR NEW DYNAMICAL CORE

**T**his past June, the U.S. National Weather Service began using an updated version of its primary weather forecast model, the Global Forecast System. According to the government press release, “this is the first major upgrade in almost 40 years to the model’s dynamical core, which is a key model component that computes wind and air pressure for successful numerical weather prediction.”

The reason that this is important is that it should lead to increased accuracy in weather forecasts covering the next 15 days, not only from the National Weather Service, but from media meteorologists and from weather companies like AccuWeather and The Weather Channel.

Back when I started forecasting the weather in the 1960s, we had computer forecast models, but they were not very accurate and producing weather forecasts still had a large artistic and intuitive component in addition to science and pattern recognition.

The accuracy of these computer forecast models suffered from two primary deficiencies:

- First, they were dependent on the accuracy and completeness of current



weather condition reports, which were sorely lacking. Today, we have a better network of ground-based observation stations, Doppler radar, and satellite observations, which has helped to make the assessment of the initial state of the atmosphere more accurate and of higher resolution.

- Second, computers were much slower and had much less memory than today's supercomputers, which meant that many simplifications had to be made to both the resolution of the data and the representation of atmospheric physics (the “dynamical core”) in order to have the computer forecasts generated in a timely manner.

Over the ensuing decades, as computers grew in speed, memory, and other capabilities, the forecasts generated by computer models became much more accurate, to the point where it became almost impossible for even the best forecast meteorologist to consistently improve the forecasts that they generated.

This allowed the creation of the algorithms and artificial intelligence that generate the forecasts that you receive on your phone and computer. All of those forecasts, with their pinpoint localization and comprehensive detail, are generated automatically with little, if any, human intervention.

The keys to the generation of these forecasts are the forecast models from the National Weather Service and international government agencies such as the European Centre for Medium-Range Weather Forecasts, which generates the “ECMWF” model often considered to be the most accurate, on average.

These forecast models generate the forecast data that are ingested by companies such as AccuWeather. Then, through the use of artificial intelligence, this information is enhanced and adjusted to be made even more accurate for its eventual role as the basis for the electronic forecasts that you likely utilize.

A couple of years ago, the National Weather Service acquired much more powerful computers. Since then, they have worked diligently to take full advantage of their enhanced capabilities by improving their forecast models.

With this improved model now being used operationally, all weather forecasts should be more accurate, as all forecasts depend on this model to some extent. The primary increase in accuracy will be in the longer range of the model forecasts, where errors sometimes grew larger over time. There likely will not be a noticeable improvement in forecasts covering the next day or two, but forecasts 5 to 15 days in the future should be significantly more accurate.

–Michael Steinberg, *Old Farmer’s Almanac meteorologist*



# HUMOR ME

## GRINS AND GROANS FROM THE ALMANAC



### FULL OF IT

At a large Thanksgiving dinner, an eminent scientist was to speak. The pièce de résistance of the feast was the conventional toothsome bird with the usual stuffing and garnishing.

The toastmaster arose at the conclusion of the meal and said, “We have all thoroughly enjoyed a turkey stuffed with sage, and I am now offering you the pleasure of a sage stuffed with turkey.”

### A SHORT RUN

In a certain town of northern Vermont, a group of young people, having put on successfully one of the old-time dramas, decided that they would go on the road and make a tour of the state.

They returned home rather unexpectedly, and on their arrival, one of the selectmen who met them asked, “Did you play Burlington?”

“Oh, yes!” answered the leading man. “We

played Burlington.”

Selectman: “Did you have a long run?”

Leading man: “Well, no . . . actually, they only chased us 10 miles.”

### A SHORT ANSWER

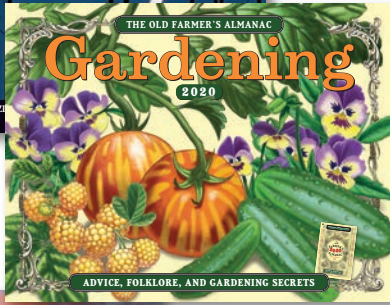
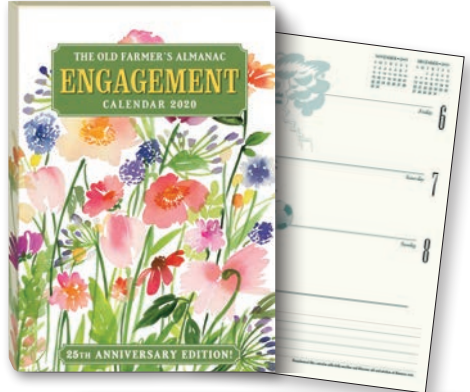
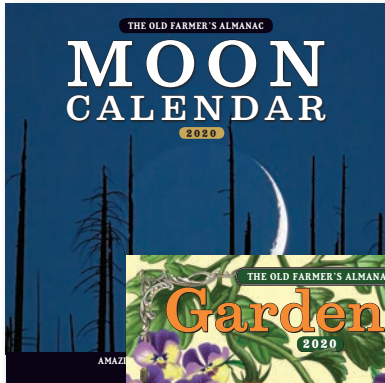
Medical instructor: “The right leg of the patient is shorter than the left, which causes him to limp. Now, what would you do in a case of this kind?”

Voice (from back of classroom): “Doc, I’d limp, too.”

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MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29						

**Fast Facts** | **Historical Events** | **Birthdays** | **Deaths**

**Fast Facts:** February is the only month with 28 days. It is also the only month that can be a leap month. The name 'February' comes from the Roman god of the month, Februs. The word 'calendar' comes from the Latin word 'calendarium', which means 'a book of accounts'.

**Historical Events:** 1787: The Constitution of the United States was signed. 1862: The Emancipation Proclamation was issued. 1918: The United States entered World War I. 1945: The atomic bombing of Nagasaki took place.

**Birthdays:** George Washington, Thomas Jefferson, Abraham Lincoln, Martin Luther King Jr., Barack Obama.

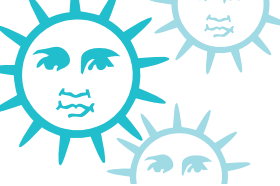
**Deaths:** George Washington, Thomas Jefferson, Abraham Lincoln, Martin Luther King Jr., Barack Obama.

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