

# EXTRA!

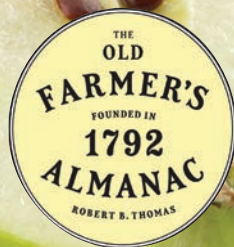
FROM THE OLD FARMER'S ALMANAC

THE BENEFITS OF  
INEFFICIENT LIVING

KEEP THE COLOR COMING

PILLOW TALK ABOUT  
ANGEL WREATHS

AUTUMN  
APPLE RECIPES



SEPTEMBER 2019

## FEATURES

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Keep the Color Coming

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Humor Me  
*Grins and groans from the Almanac*

### WHAT'S NEXT

See what we have in store for our October issue!



FOLLOW US:



# SEPTEMBER

*Holidays, Fun Facts, and More*



## EYE ON THE SKY

### MOON PHASES

#### First Quarter:

Sept. 5, at  
11:10 P.M. EDT

#### Full Harvest

**Moon:** Sept. 14,  
at 12:33 A.M. EDT

#### Last Quarter:

Sept. 21, at  
10:41 P.M. EDT

#### New Moon:

Sept. 28, at  
2:26 P.M. EDT



TAP FOR MORE ABOUT  
MOON PHASES



TAP FOR MORE ABOUT  
SEPTEMBER'S FULL  
MOON

## ABOUT THIS MONTH

This month's name came from the Latin *septem*, "seven," because this month was the seventh month of the early Roman calendar.

**Birthstone:** Sapphire



**Birth Month Flowers:** Aster and Morning Glory



## HOLIDAY HAPPENINGS

- Sept. 2:** Labor Day  
**Sept 8:** Grandparents Day  
**Sept. 11:** Patriot Day  
**Sept. 17:** Constitution Day  
**Sept. 21:** International Day of Peace  
**Sept. 23:** Autumnal Equinox  
**Sept. 29:** Rosh Hashanah begins at sundown



## WACKY TIMES

- Sept.:** Happy Cat Month  
**Sept. 8:** National Hug Your Hound Day  
**Sept. 13:** Kids Take Over the Kitchen Day  
**Sept. 19:** International Talk Like a Pirate Day  
**Sept. 24:** National Punctuation Day



## RHYME TIME

*Mistily rises  
the harvest  
Moon*

*Over acres of  
yellow corn:*

*Sweet—how  
sweet!—is the  
reaper's tune*

*Through  
the silvering  
woodlands  
borne.*

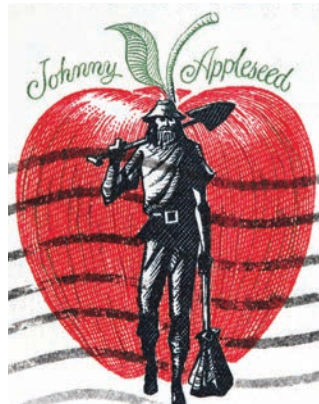
—Mortimer Collins,  
English poet  
(1827–76)

**Answer: B.**  
John had an older sister, Elizabeth, and a younger brother, Nathaniel. John's mother died when he was a small child; his father later remarried and had 10 more children, who became John's stepbrothers and stepsisters.

## SEPTEMBER'S QUIZ

On September 26, 1774, nurseryman John Chapman (“Johnny Appleseed”) was born. Which of the following facts is *not* true about this legendary figure?

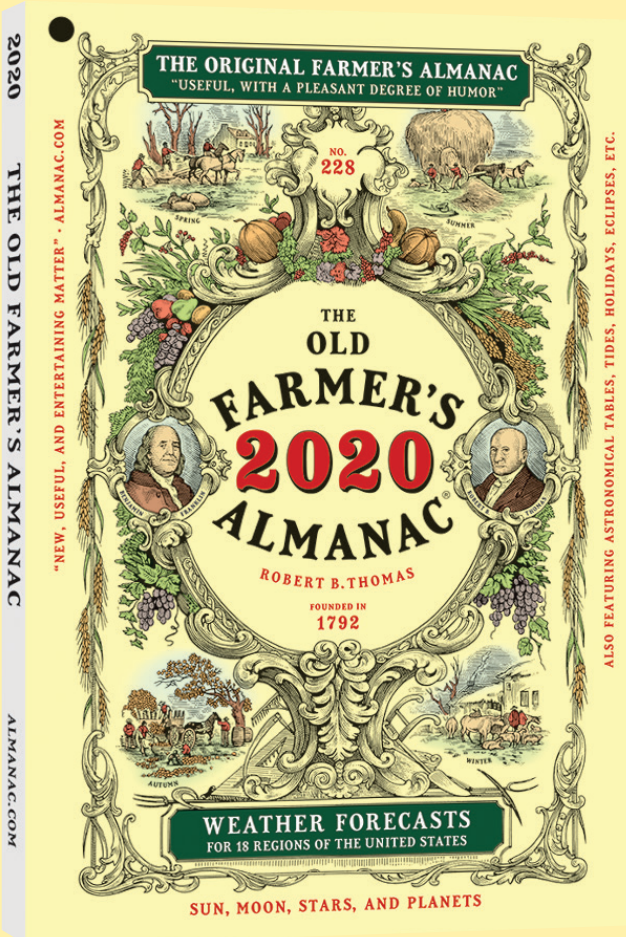
- A.** The trees that he planted produced apples ideal for making hard cider and applejack.  
**B.** He was an only child.  
**C.** He once doused a campfire to save mosquitoes from flying into it.  
**D.** His father had been a Minuteman at the Battle of Concord and Battle of Bunker Hill.





# Shipping Now!

## THE 2020 OLD FARMER'S ALMANAC



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## BEST DAYS TO DO THINGS

These September 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*

### PERSONAL

---

Advertise to sell: 3, 4

Ask for a loan: 17, 18

Begin diet to lose weight: 18, 27

Begin diet to gain weight: 4, 8

Buy a home: 3, 4

Cut hair to discourage growth:  
17–19

Cut hair to encourage growth: 1,  
2, 29

Color hair: 17–19

Get married: 1, 2, 28, 29

Have dental care: 26, 27

Move (house/household): 20, 21

Perm hair: 10, 11

Quit smoking: 18, 27



Straighten hair: 5, 6  
Travel for pleasure: 24, 25  
Wean children: 18, 27

### **AROUND THE HOUSE**

---

Bake: 22, 23  
Brew: 3, 4, 30  
Can, pickle, or make sauerkraut: 22, 23  
Demolish: 3, 4, 30  
Dry fruit/vegetables/meat: 24, 25  
End projects: 27  
Lay shingles: 24, 25  
Make jams/jellies: 12–14  
Paint: 17–19  
Start projects: 29  
Wash floors: 12–14  
Wash windows: 15, 16

### **OUTDOORS**

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Begin logging: 7–9  
Go camping: 5, 6  
Go fishing: 1–14, 28–30  
Set posts or pour concrete: 7–9

### **IN THE GARDEN**

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Destroy pests and weeds: 15, 16  
Graft or pollinate: 22, 23  
Harvest aboveground crops: 7–9  
Harvest belowground crops: 17, 18  
Mow to decrease growth: 15, 16  
Mow to increase growth: 3, 4  
Pick fruit: 26, 27  
Plant aboveground crops: 3, 4, 30  
Plant belowground crops: 22, 23  
Prune to discourage growth: 15, 16  
Prune to encourage growth: 5, 6

### **ON THE FARM**

---

Breed animals: 3, 4, 30  
Castrate animals: 10, 11  
Cut hay: 15, 16  
Purchase animals: 22, 23  
Set eggs: 9, 10, 18–20  
Slaughter livestock: 3, 4, 30  
Wean animals: 18, 27



## GARDENING BY THE MOON'S SIGN

Use the September 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 SEPTEMBER

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



TAP FOR  
MERCURY IN  
RETROGRADE  
DATES



TAP FOR  
SEPTEMBER  
MOON PHASES



## MERCURY IN RETROGRADE

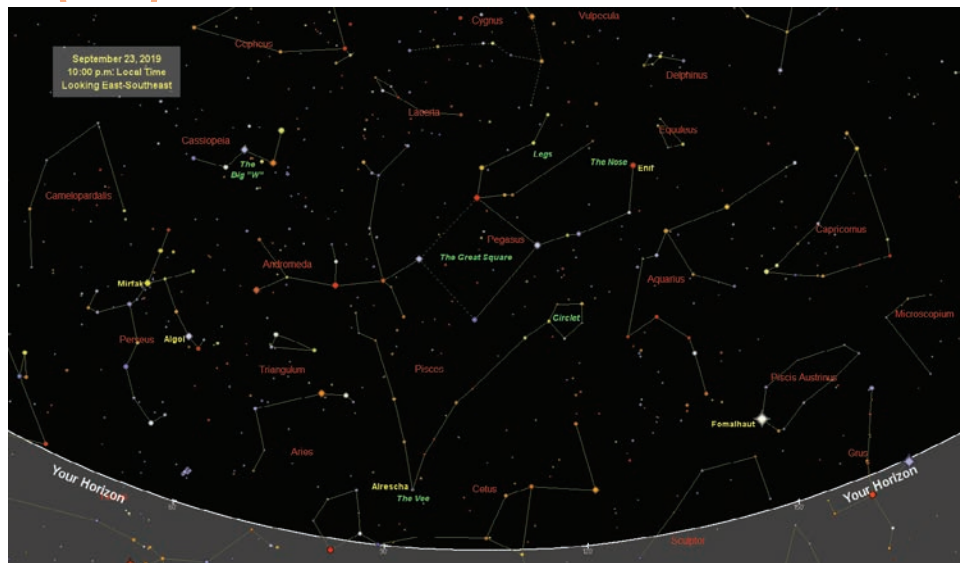
Sometimes the other planets appear to be traveling backward through the zodiac; this is an illusion. We call this illusion *retrograde motion*.

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.

Mercury will be retrograde during **October 31–November 20, 2019.**

—Celeste Longacre



## THE FIRST NIGHT OF AUTUMN

**A**utumn officially begins on Monday, September 23. For astronomers, it's the Autumnal Equinox, when the Sun crosses the celestial equator. For the rest of us, this marks the date when the hours of daylight and darkness are approximately equal. It's all downhill after that! The days grow even shorter and the nights get even longer for the next 3 months, until late December, when the trend reverses and the nights at last begin to shorten.

September is a terrific time to go stargazing. In the Northern Hemisphere, the worst of the summer heat is gone. It's the sort of weather that encourages you to linger under the stars and wander through the sky.

Looking east-southeast on Equinox Night—September 23—you won't see many bright stars. Nevertheless, there'll be plenty of distinctive asterisms (unofficial star patterns),



TAP TO GET  
A PRINTABLE  
SEPTEMBER  
SKY MAP



TAP TO  
FOLLOW  
OHIOAN JEFF  
DETRAY'S SKY  
ADVENTURES



including the prominent Great Square of Pegasus, the Winged Horse. The Great Square encloses an area of sky with few stars visible to the unaided eye, making its interior look nearly empty. Pegasus is upside down from our point of view, but you can easily trace his graceful neck and head, which ends with the star Enif (“the Nose” in Arabic). The front legs of the Winged Horse are also easy to spot.

Just off The Nose is a small pattern of four stars representing Equuleus, the Foal, a close relative of Pegasus. Above Equuleus is another tiny constellation, Delphinus, the Dolphin. Despite making up one of the smallest constellations, the five stars of Delphinus have been recognized as a leaping dolphin for thousands of years.

Below the Great Square lies the constellation Pisces, representing a pair of fish bound together at their tails. The five-sided Cirlet asterism comprises the head of the right-hand fish, and The Vee marks the spot where the two fish are joined. The star Alrescha (“the Cord”) connects the fishy pair forever.

A third fish swims nearby in the form of Piscis Austrinus, the Southern Fish. The only bright star on this month’s map is found in Piscis Austrinus. It’s Fomalhaut, an Arabic word that translates as “the

mouth of the fish.”

To the left of the Great Square, you’ll find the big W shape of Cassiopeia, the Queen. In mythology, Cassiopeia is the wife of Cepheus, the King of Ethiopia, part of whom can be seen at the top of our map.

Finally, the lower left of our map holds a stargazing challenge, if you’re up to it, in the constellation Perseus, the Hero, who once rescued Andromeda from a sea monster.

For our purposes, Perseus is home to a most amazing star, Algol, the Demon Star. Most of the time, Algol is a little dimmer than the nearby star Mirfak. But every 2.86 days, Algol dims dramatically, so much so that you can easily notice as it becomes fainter. Here are some opportunities to see Algol at its dimmest this month (all are Eastern Time):

**September 4 @ 05:17 A.M.**

**September 7 @ 02:05 A.M.**

**September 9 @ 10:54 P.M.**

**September 27 @ 03:46 A.M.**

**September 30 @ 00:34 A.M.**

The dimming and re-brightening takes several hours, so find Algol 2 to 3 hours before the listed times and compare its brightness to that of nearby stars. Then return at the time of minimum brightness and note how much Algol has dimmed. It’s quite extraordinary! *–Jeff DeTray*



# Autumn Apple Recipes

It's prime time to harvest apples, and we've got some delicious ideas for using fall's favorite fruit. Beyond the classic pie, apples are delicious in everything from breakfast to snacks to dinner. Try these mouthwatering recipes, and we're sure you'll agree that autumn is the most wonderful time of the year.



FOOD

# Apple and Cranberry Puffed Pancake



TAP FOR  
RECIPE

PHOTO: SAM JONES/QUINN BRENN



## APPLE AND CRANBERRY PUFFED PANCAKE

3 eggs

1/2 cup all-purpose flour

1/2 cup milk

4 tablespoons (1/2 stick) butter, divided

2 Granny Smith apples, cored and sliced

1/2 cup chopped fresh cranberries

1 tablespoon sugar

1-1/4 teaspoons ground cinnamon

confectioners' sugar, for topping

Preheat oven to 450°F.

In a bowl, thoroughly whisk eggs. Slowly add flour, whisking to prevent lumps. Gradually add milk and whisk to form a smooth batter. Set aside.

In a skillet over medium heat, melt 2 tablespoons butter, then add apples, cranberries, sugar, and cinnamon. Cook for 15 minutes, or until apples are fork tender.

In a 9-inch pie plate, melt remaining 2 tablespoons butter. Fill pie plate with apple mixture and top with batter. Bake for 15 to 20 minutes, or until puffed and golden.

Top pancake with a liberal dusting of confectioners' sugar. Slice into portions and serve immediately.

**Makes 4 servings.**

SHARE  
THIS  
RECIPE

FOOD

 TAP FOR RECIPE

# Double-Apple Walnut Bread

PHOTO: SAM JONES/QUINN BREIN



## DOUBLE-APPLE WALNUT BREAD

- 1 cup sweetened or unsweetened applesauce
- 1/2 cup plus 1 tablespoon sugar, divided
- 1/2 cup brown sugar
- 2 eggs
- 1/4 cup vegetable oil
- 1/4 cup plain or vanilla yogurt
- 1 teaspoon vanilla extract
- 2 cups all-purpose flour
- 1 teaspoon baking powder
- 3/4 teaspoon salt
- 1/2 teaspoon baking soda
- 1/2 teaspoon ground cinnamon
- 1/8 teaspoon ground nutmeg
- 1 cup peeled, cored, and finely diced apple
- 1/2 cup chopped walnuts

Preheat oven to 350°F. Butter a 9x5-inch loaf pan and line with parchment paper, if desired.

In a bowl, combine applesauce, 1/2 cup of sugar, brown sugar, eggs, oil, yogurt, and vanilla.

In a separate bowl, sift together flour, baking powder, salt, baking soda, cinnamon, and nutmeg. Make a well and add applesauce mixture. Stir until combined. Fold in diced apples and walnuts. Scrape batter into prepared pan and smooth the top. Sprinkle with the remaining tablespoon of sugar.

Bake on the center oven rack for 50 to 55 minutes, or until a tester inserted into the center comes out clean.

Transfer to a cooling rack for 10 minutes. Turn the bread out of the pan and cool thoroughly before slicing.

**Makes 1 loaf.**

SHARE  
THIS  
RECIPE



# Turkey and Green Apple Panini

 TAP FOR  
RECIPE



 SHARE  
THIS  
RECIPE

## TURKEY AND GREEN APPLE PANINI

- 8 slices hearty white sandwich bread or other crusty bread, sliced about 1/2 inch thick
- 2 tablespoons Dijon-style or maple mustard
- 8 slices deli-style Swiss cheese
- 8 ounces deli-style smoked turkey
- 1 large Granny Smith apple, cored and thinly sliced
- 2 to 3 tablespoons butter

Preheat a panini press or place a skillet over medium-low heat.

Lay four slices of bread on a flat surface. Top each with 1/2 tablespoon of mustard, followed by one slice of Swiss cheese. Add 2 ounces of smoked turkey, followed by three or four apple slices. Top with remaining cheese and bread.

Butter the top of each sandwich and place butter side down on the hot panini press. Butter the remaining side, then close the press and grill for 3 to 5 minutes, or until bread turns golden brown and cheese melts.

If using a skillet, cook for 3 to 4 minutes per side, or until bread turns golden brown and cheese melts.

**Makes 4 sandwiches.**



LIVING NATURALLY



# The Benefits of Inefficient Living

Psst! Wanna save money, improve health and fitness, and lower your carbon footprint—simultaneously?

PHOTO: PIXABAY

**T**hink about ways to make your daily life less efficient.

The idea: Arrange your life to move more and rely less on power tools, appliances, and machines.

### A FEW TIPS

- Put up a clothesline and hang the wash. Clothes dryers account for almost 6 percent of household electrical costs. Line-dried clothes and sheets smell great. No, your towels won't turn out soft and fluffy, but they will replace all of those expensive exfoliants.
- If you have an unheated basement that doesn't freeze, keep your refrigerator and freezer down there. The cooler year-round temperature means that the appliances will work less to do their job, saving money on utility bills. An exercise physiologist once helped me to calculate that simply by running up and down stairs to fetch and put away my food burns the

calorie equivalent of 10 to 13 pounds each year.

- For that matter, take the stairs wherever you go.
- Stash bedding, towels, pantry staples and other items on another floor or in a far corner of the house away from where you'll use them.
- For every errand of a mile or less, commit to walking or bicycling. You can carry quite a load in a sturdy backpack. Biking or hiking just 5 miles a week when you'd ordinarily use your car will save around \$40 a year in gas and burn the calorie equivalent of 5 to 7 pounds.
- For city errands, park on a side street—where you don't have to feed a meter—and walk the extra blocks. I often hear people at my local YMCA trudging away on the treadmill, moaning that they couldn't find a nearby parking space and had to park three blocks away.
- Consider selling your snowblower, power lawn mower, and /or leafblower and going back to the shovel, push mower, and/

or rake. (Hint: Check out the new-fashioned ergonomic models of shovels, rakes, etc.)

- Learn (from an expert) about wild-food foraging in your part of the world, then get out and forage. For a weekend adventure, take a few friends, then cook up a wild feast for dinner. (Never eat anything that you can not identify.)
- Other inefficiencies that can save money and foster family well-being include food gardening, composting, splitting and stacking firewood, and getting outside to hike/bike/explore with your kids.

Yep, you do deserve a break today. Instead of indulging in fast food for dinner, take 10 minutes to hang a load of wash, 15 to bike to the store for the newspaper and back, or 20 to rake part of the yard. Or do all three!

—Margaret Boyles

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





GARDENING

*Boltonia asteroides*  
'Snowbank' produces  
a profusion of  
daisylike flowers.

# Keep the Color Coming

As the season comes to a close for most annuals,  
this trio of perennials prepares to show off.

PHOTO: [ONLINEPLANTGUIDE.COM](http://ONLINEPLANTGUIDE.COM)



*Lycoris squamigera* blooms have exceptional fragrance.

**A** true gardener knows that fall is anything but an off-season. As the days grow short, there are many glorious ornamentals to enjoy. Here are a few of our favorites.

**+ TAP FOR PLANTING TIPS**

### IN THE PINK

*Lycoris squamigera* is known by several names, each more revealing than the next. Its genus honors the mistress of the ancient Roman

Mark Antony, while it is more commonly called resurrection, surprise, and magic lily because its straplike foliage appears in spring and dies back in late summer.

And just when you think that it has failed you, its flower stem rises between 18 and 24 inches to burst forth with 4 to 7 trumpetlike, rose-pink blooms that have exceptional fragrance. (Except for the perfume, the flower brings to mind its cousin, amaryllis.)

All of this, and *Lycoris* asks for little in return—only well-drained soil, full to partial sun, and the climate conditions of Zones 5 to 9.

### A BLIZZARD OF BLOOMS

*Boltonia asteroides* ‘Snowbank’ only sounds chilling; in fact, its billowing profusion of daisylike flowers with their gold centers spreads sunshine. Evocative of aster (hence its nickname: false aster), coreopsis, and

### **PLANTING TIPS**

Take advantage of the early fall to get healthy container-grown plants into the ground. At this time, plants naturally have a surge of root production. The best time is from after the heat of summer has passed to about a month before the ground freezes.

In the most northern areas, this means planting in late August to mid-September. In the warmer parts of Zone 6 and into Zone 7, gardeners can plant into October. September and October often bring cloudbursts, but if rains are infrequent, water young transplants when the soil is dry to the touch or when leaves flag.





## Clematis brings forth spectacular, long-lasting flowers.

cornflower, this North American native begins to flower in August and continues well into September (the first frost will bring its show to an end).

A compact plant, it grows just 3 to 4 feet tall and needs no staking. (Maybe that's why another name for it is white doll's daisy.) It's not fussy about soil conditions (in fact, rich soil can cause it to flop) and will bring years of pleasure in Zones 3 to 10.

### **FRENCH FLAIR**

Clematises typically bloom throughout the summer; 'Ville de Lyon' is one that makes a stunning second act during late summer and into fall. Raised in France in 1899, it has been a favorite for decades (we found it cited and recommended in an *Arnold Arboretum/Harvard University Bulletin* of 1937—and elsewhere since then).

This climber brings forth spectacular, long-

lasting, carmine-red flowers, 4 to 5 inches (or more) across, with yellow stamens for contrast, when maintained in moist but well-draining soils in full sun or partial shade (clematises like to have their heads in the sun and their feet in the shade). It thrives in Zones 4 to 9. Prune to about a foot in height after the final blooms or wait until spring.

*Wait?* To prune, maybe, but not for more color.

FOLKLORE



# Pillow Talk About Angel Wreaths

*A spooky story submitted by a reader in the 1980s*

PHOTO: LORI KIMBALL/[WWW.VERAVIOLA.COM](http://WWW.VERAVIOLA.COM)

## I have read many descriptions of feather crowns and have even seen two of them with my own eyes.

**F**olklore has long been a passion of mine, and I want to share something genuinely extraordinary with your readers. In the Missouri and Arkansas Ozark country and parts of Appalachia, as well as rural southern Illinois where I live, one often hears older residents mention the so-called “feather crowns,” also known as “heavenly crowns” and “angel wreaths.” These mysterious objects supposedly form in the pillows of people who are dying as proof that the person is going to an eternal reward in heaven.

I have read many descriptions of feather crowns and have even seen two of them with my own eyes. Apparently, the majority of crowns were simply loosely constructed arrangements of feathers

resembling a crudely made bird’s nest (as were the two I examined), but some were exquisitely woven works of art resembling, in the words of one folklorist, “a large bun . . . solid enough to be tossed about like a ball, and surprisingly heavy.”

**B**ut how were they formed inside feather pillows? Many believers attributed the crowns to divine origin. Research reveals that feather vendors attributed the clustering of feather into bunches, or lumps, as a natural occurrence.

Every Ozark and southern Illinois folklorist who has dealt with feather crowns, while conceding that a minute number of rudely made ones might have been faked, is convinced that the overwhelming majority could not

possibly have been made by human hands.

One thing is sure: When a person died, his relatives always searched the inside of the pillow for a heavenly crown. If one was found, the family rejoiced, and the crown was kept as a treasured relic for years. Although the Missouri and Arkansas Ozarks abound with stories regarding stolen crowns, shifted pillows, and crowns turning up in the pillows of people whose lives were hardly exemplary, it should be noted that the possibility for outright fraud in regard to heavenly crowns is small, since most hill folk are too superstitious to meddle in these matters.

**A**nother explanation is that since these objects are found



## FOLKLORE

### **The discovery of angel wreaths is a rare occurrence these days.**

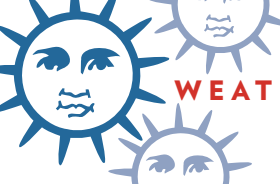
only in the pillows of someone who has recently died, they must be harbingers of death and therefore evil. People who subscribe to the “evil” theory point out that one never finds a perfect, finished crown excepting in the pillow of someone who has died.

The discovery of angel wreaths is a rare occurrence nowadays; I don’t know whether it is due to the increasing urbanization of the country and the resulting destruction of the old ways and beliefs or just the increased use of foam pillows.

One old-timer I interviewed did offer a third possible explanation for the dearth of heavenly crowns. “There jus’ ain’t as many people that’s deservin’ ’em these days,” he postulated. Maybe. You decide.

*—John Dunphy*





AS SEPTEMBER, SO THE COMING MARCH.

# 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.

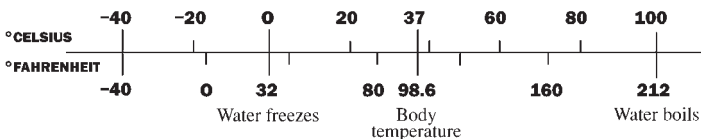


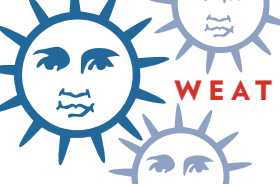
TAP TO FIND OUT THE WEATHER HISTORY OF THE DAY



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

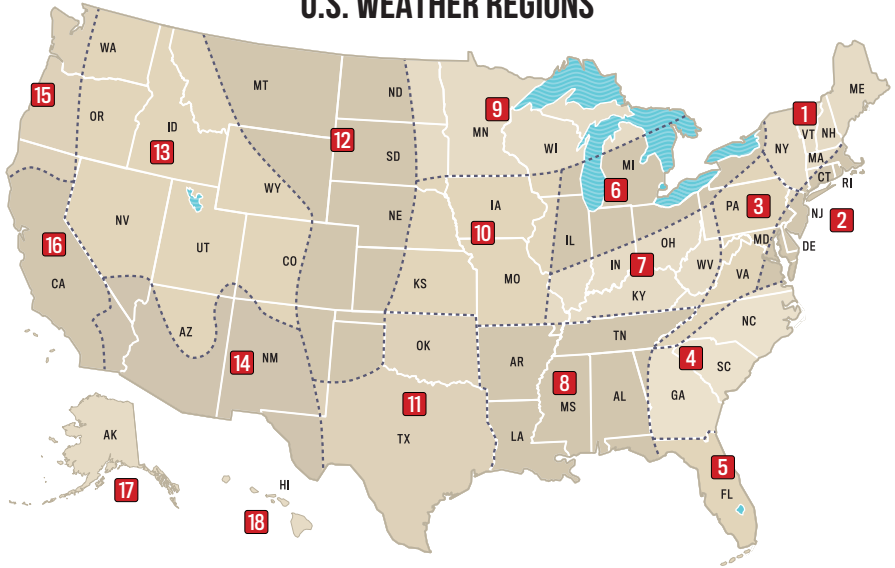
## CELSIUS-FAHRENHEIT TABLE





# WEATHER FORECASTS

## U.S. WEATHER REGIONS



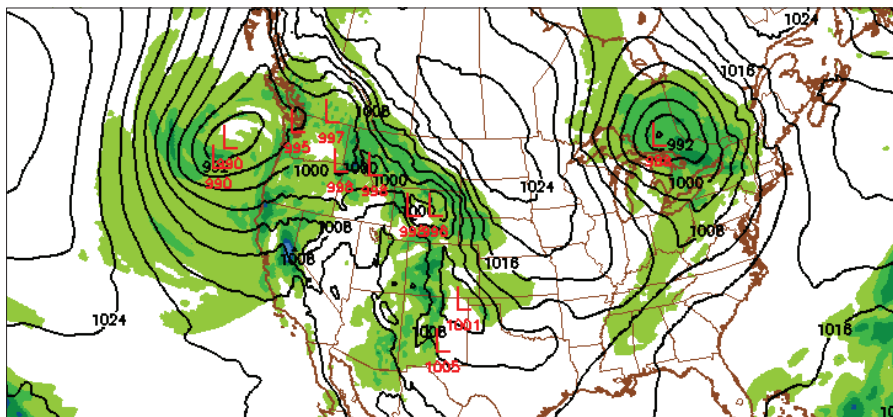
## CANADIAN WEATHER REGIONS



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







*U.S. National Weather Service Global Forecast System*

## WEATHER COMPUTERS, THE 1969 MOON LANDING, AND YOUR MICROWAVE

**O**n my 15th birthday, way back in June of 1967, my family moved. And when I started 10th grade in the new school year, I discovered that my new high school had an “advanced weather program” that was not available at any other high school in the world.

We had access to the latest technology: “high-speed” Teletypes that received and printed the latest weather data at 30 characters per second, along with a weather radar that the school had received as military surplus.

By the time I graduated from high school (to eventually go on to major in meteorology in college and then graduate school), I already had two years of experience in doing the weather forecasts for a local radio station and newspaper.

Weather forecasting back then was almost entirely based upon experience and intuition. Some people were able to visualize how weather patterns would evolve based upon the current weather maps, and they were the best forecasters. We also had access to some of the first computer forecast models of the atmosphere, but they were so simple and inaccurate that they were of minimal value.

The primary problem with those forecast models was the computers, which had trivial capabilities compared with what is available today. To give you an



example, the computer that helps your microwave to work has more computer power than the computers that were used to guide the Moon landing in 1969.

Since that time, more than 50 years ago, computers have gained many orders of magnitude in power, speed, and storage capabilities, and the computer forecast models that we use today yield much more accurate forecasts than even the most skilled meteorologists could ever hope to create without them.

Although we still complain about the accuracy of weather forecasts, they are more accurate than many other kinds of forecasts made today. The average error in the forecast for the eighth day is less today than it was for the second day back when I started forecasting the weather. And, while back then people laughed at a forecast of a blizzard coming the next day, now stores sell out of milk as people prepare for a big snowstorm that is forecast to occur in a few days.

In 2018, the U.S. National Weather Service had a major upgrade to its computer facilities, making its combined weather and climate supercomputing system among the 30 fastest in the world, with the ability to process 8 quadrillion calculations per second. This enabled them to make changes to their primary weather forecast computer model, which they tested and improved further over the following year.

On June 12, they put the new model into operation, as an upgraded version of the country's flagship weather forecast model, the Global Forecast System. 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 new model also brought about many other improvements and enhancements to make weather forecasts more accurate. This model is used not only by the National Weather Service, but also by TV meteorologists and commercial weather companies like AccuWeather, which use this and other models to generate their forecasts.

So, you may notice an improvement in the accuracy of weather forecasts covering the period from tomorrow through the next week or two, and this new computer forecast model is the main reason why.

Of course, this does not affect the long-range weather forecasts in *The Old Farmer's Almanac*, which are based on solar cycles and calculated more than a year in advance—and will remain as the most accurate long-range forecasts from any source. —Michael Steinberg, *Old Farmer's Almanac meteorologist*



# HUMOR ME

GRINS AND GROANS FROM THE ALMANAC



## REASONABLE FEAR

"I'm so afraid of lightning," murmured the pretty young woman.

"As well you should be," sighed her frustrated suitor, "when your heart is made of steel."

## "CHAPPED" LIPS

A young lady was complaining to a friend that she had a cold

and her lips were sadly plagued by the chaps.

"Friend," came the reply, "you should never let the chaps even come near your lips."

## NAME BLAME

Said a wag: "No wonder physicians frighten the life out of hypochondriacs, with names like Dr. Slaughter, Dr. Graves,

Dr. Pillsbury, Dr. Toothaker, and Dr. Coffin."

## HOME BODIES

"I shall be at home next Sunday night," a young lady said, as she followed to her door a new beau who seemed somewhat wavering in his attachments.

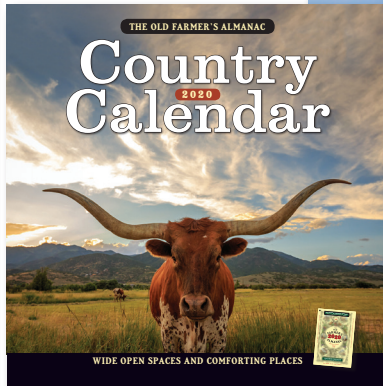
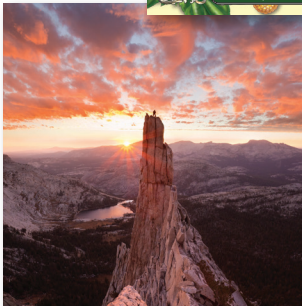
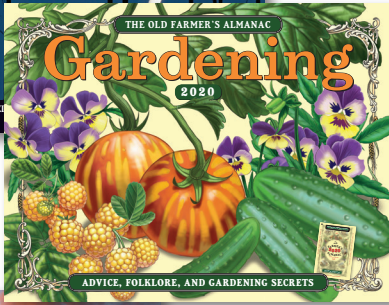
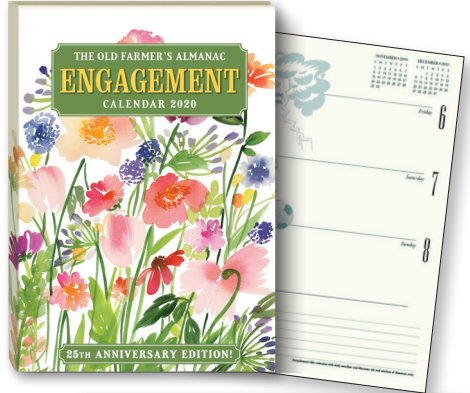
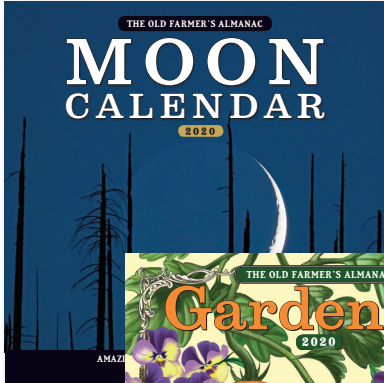
"So shall I," was his reply.



# 2020 Old Farmer's Almanac Calendars

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FEBRUARY 2020						
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						

**Leap Year** This is the only time in 4 years that February has 29 days. The next leap year will be 2024.

**Leap Day** The extra day is added to the calendar to keep it in sync with the Earth's orbit around the Sun. It is added to the month of February because it is the only month that is shorter than a year.

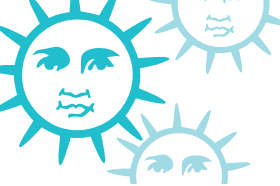
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