FROM THE OLD FARMER'S ALMANAC





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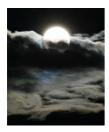
See what we have in store for our Iune issue!





MAY

Holidays, Fun Facts, and More



EYE ON THE SKY

MOON PHASES

New Moon: May 4,

at 6:46 p.m. EDT

First Quarter:

May 11, at 9:12 P.M. EDT

Full Flower

Moon: May 18,

at 5:11 P.M. EDT

Last Quarter:

May 26, at 12:34 P.M. EDT

TAP FOR MORE
ABOUT MOON
PHASES

TAP FOR MORE ABOUT MAY'S FULL MOON

ABOUT THIS MONTH

This month likely was named for the Roman goddess Maia, who oversaw the growth of plants. Another interpretation says that the name came from the Latin *maiores*, "elders," who were celebrated at this time.

Birthstone: Emerald



Birth Month Flowers: Hawthorn, Lily-of-the-Valley







HOLIDAY HAPPENINGS

May 5: Cinco de Mayo

May 12: Mother's Day

May 18: Armed Forces Day

May 20: Victoria Day

(Canada)

May 22: National Maritime

Day

May 27: Memorial Day,

observed



WACKY TIMES

Get Caught Reading Month

National Good

Car-Keeping Month

May 1: School Principals'

Day

May 2: World Tuna Day

May 5-11: Root Canal

Awareness Week

May 8: No Socks Day

May 14: Dance Like a

Chicken Day

May 28: Slugs Return From

Capistrano Day



MAY'S QUIZ

In honor of Mother's Day (May 12), which of the following is a Bulgarian word for "mother"?

A. Majka

B. Makuahine

C. Mãe

D. Màna

RHYME TIME

Oh! fragrant is the breath of May
In tranquil garden closes,
And soft yet regal is her sway
Among the springtide roses.

–William Hamilton Hayne, American poet (1856–1929)

Answer: A

(B, Hawaiian; C, Portuguese; D, Greek)



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BEST DAYS TO DO THINGS

These May 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: 5, 17

Ask for a loan: 23-25

Begin diet to lose weight: 27, 31

Begin diet to gain weight: 5, 18

Buy a home: 5, 17

Color hair: 4, 5

Cut hair to discourage growth:

26 - 28

Cut hair to encourage growth: 5, 15, 16

Get married: 15, 16

Have dental care: 12-14

Move (house/household): 6, 7

Perm hair: 23–25



Quit smoking: 27, 31

Straighten hair: 19, 20

Travel for pleasure: 10, 11

Wean children: 27, 31

AROUND THE HOUSE

Bake: 8, 9

Brew: 17, 18

Can, pickle, or make sauerkraut:

26-28

Demolish: 17, 18

Dry fruit/vegetables/meat: 1-3, 29,

30

End projects: 3

Lay shingles: 10, 11

Make jams/jellies: 26–28

Paint: 4, 5

Start projects: 5

Wash floors: 26-28

Wash windows: 2, 3, 29, 30

OUTDOORS

Begin logging: 21, 22

Go camping: 19, 20

Go fishing: 4–18

Set posts or pour concrete: 21, 22

IN THE GARDEN

Destroy pests and weeds: 1–3, 29–30

Graft or pollinate: 8, 9

Harvest aboveground crops: 4, 5,

12 - 14

Harvest belowground crops: 21, 22,

31

Mow to decrease growth: 29, 30

Mow to increase growth: 17

Pick fruit: 12-14

Plant aboveground crops: 8, 9

Plant belowground crops: 26–28

Prune to discourage growth: 1–3,

29-30

Prune to encourage growth: 10, 11

ON THE FARM

Breed animals: 17, 18

Castrate animals: 23–25

Cut hay: 1-3, 29, 30

Purchase animals: 8, 9

Set eggs: 14-16, 23, 24

Slaughter livestock: 17, 18

Wean animals: 27, 31





GARDENING BY THE MOON'S SIGNUse the May dates shown in the Moon's Astrological Place

Use the May 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.

TAP FOR MERCURY IN RETROGRADE DATES

TAP FOR MAY MOON PHASES

THE MOON'S ASTROLOGICAL PLACE IN MAY

1 Aries	9 Cancer	17 Scorpio	25 Aquarius
2 Aries	10 Leo	18 Scorpio	26 Pisces
3 Aries	11 Leo	19 Sagittarius	27 Pisces
4 Taurus	12 Virgo	20 Sagittarius	28 Pisces
5 Taurus	13 Virgo	21 Capricorn	29 Aries
6 Gemini	14 Virgo	22 Capricorn	30 Aries
7 Gemini	15 Libra	23 Aquarius	31 Taurus
8 Cancer	16 Libra	24 Aquarius	

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*.

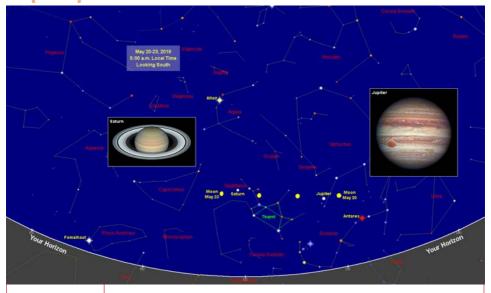
Mercury's retrograde periods can cause our plans to go awry. However, this is an excellent time to reflect on the past. Intuition is high during these periods, and coincidences can be extraordinary.

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 2019 to come, Mercury will be retrograde during July 7–August 2, and October 31–November 20.

-Celeste Longacre







A PRINTABLE MAY **SKY MAP**

TAP TO FOLLOW OHIOAN JEFF DETRAY'S SKY ADVENTURES

TAP FOR THE
SUNRISE
AND SUNSET
CALCULATOR

DANCING WITH THE MOON

Stargazing is typically a relaxing evening pursuit at the conclusion of a busy day. But the stars and planets can't tell time, and they sometimes put on their best displays in the hours just before sunrise. So it is in mid-May, when the Moon dances with our two largest planets in the predawn sky.

The planets, of course, are Jupiter and Saturn, the largest and second largest planets in our solar system. Over the course of four mornings, from May 20 to May 23, the Moon moves steadily from right to left past the two planets. During this time, Jupiter and Saturn will barely change their positions at all. In contrast, the Moon will be in a different location each morning, and her shape will also change every day.

LET'S DANCE!

First of all, you'll want to set your alarm for no later than 30 minutes before sunrise each morning; 45 is even better. To find your sunrise time, use the Almanac's Sunrise and



Sunset Calculator. The closer to sunrise you awake, the more washed out and less impressive the view will be, so don't press "Snooze" on your alarm!

On May 20, the Moon is just to the right of Jupiter, the King of Planets. Less than 2 days past full, the Moon still looks nice and round. To the lower right of the Moon is the bright star Antares. As with so many things in astronomy, the term "bright" is relative. Although mighty Antares is the 15th brightest of all stars, it's also more than 7 million times farther from us than Jupiter. So, from our point of view, Jupiter appears brighter than Antares. NASA's *Juno* spacecraft is currently orbiting Jupiter and sending back science data and spectacular images.

TAP FOR IMAGES AND MORE FROM NASA'S JUNO MISSION TO JUPITER The next morning, May 21, finds the Moon hovering above the "spout" of the Teapot asterism. The Teapot is composed of the brightest stars in the constellation Sagittarius, the Archer. When you gaze toward Sagittarius,

you're looking toward the center of our galaxy, the Milky Way. Note that the Moon no longer looks round. She's becoming smaller, or waning, and has assumed her gibbous phase—less than full but still greater than quarter.

A day later, on the morning of May 22, the Moon is approaching Saturn, the Ringed Planet, and sits near the Teapot's handle. More obviously gibbous now, the Moon is shaped something like a lopsided egg.

It's now May 23, the last morning of our Moon's close encounter with Jupiter and Saturn. Overnight, the gibbous Moon has moved from one side of Saturn to the other.

Saturn is a spectacular planet. In 1610, Galileo Galilei used one of his early telescopes to observe Saturn and came away puzzled. The modest resolution of his tiny instrument prevented Galileo from recognizing the rings for what they were. Instead, he thought that Saturn resembled a planet with a smaller planet on either side. A few years later, he described Saturn as having "ears" or "handles." It wasn't until 1655 that Dutch astronomer Christiaan Huygens correctly asserted that Saturn was surrounded by a ring.

Our 4-day Moon dance is over. Jupiter and Saturn will move only slowly from their current positions, but the Moon will continue flying farther to the left every day. She'll continue shrinking, too, until becoming a New Moon (and therefore not visible) on June 3.

—Jeff DeTray



Pruning 101

Do you have a fear of pruning? Here's how to nip it in the bud.



he most dreaded chore in the garden just might be pruning. But this task is a vital part of gardening. Careful pruning benefits the plant as well as the eye, as neatness usually goes hand in hand with good shrub and tree health. Follow these guidelines to find out why pruning is not just an art but a science.

WHAT TO PRUNE

On any tree or shrub, these problems all call for pruning:

- dead, dying, broken, or diseased branches, limbs, or stems
- branches that cross

each other and chafe (at least one of them needs to be pruned)

- branches that grow back toward the stem
- suckers—shoots growing up out of the ground from a tree's roots (dig below ground level and pull or cut out the sucker)
- water sprouts—long, straight, upright shoots growing from the trunk or main branches

For many trees and shrubs, this is enough. However, both young and old plants—and all plants grown for fruit or showy flowers—may benefit from additional pruning:

• Prune **a young tree or shrub** to guide the plant

toward a strong, well-balanced, open structure of branches or stems.

• Prune an old tree or shrub to encourage it to replace old, weak wood with new, vigorous wood that will promote a good crop of fruit or flowers.

WHEN TO PRUNE

You can remove dead, dying, or broken branches at any time of year—and the sooner, the better.

Flowering shrubs require special care. Find out whether the species blooms on old wood or new growth, then follow these guidelines:

• If it flowers on old wood, prune after it

GARDENING

flowers.

- If it flowers on new growth, prune while the plant is dormant, in early spring or late winter.
- Prune **a shrub** to improve its structure soon after planting.
- Wait at least a year to prune a **newly planted tree** (except for removing dead or dying limbs).

For other pruning, late winter is often the best time. Plants are dormant and will have plenty of time to heal.

HOW TO PRUNE

No matter what you're pruning, always cut back to a bud, a lateral branch, or the trunk or stem. A random cut at midbranch or -limb leaves a stub, which will decay and encourage diseases and insects to enter.

Remember these

- TAP FOR HOW TO PRUNE APPLE AND PEAR TREES
- TAP FOR HOW TO PRUNE
 PEACH AND NECTARINE
 TREES

BEST DAYS TO PRUNE

... to encourage growth: May 10 and 11 ... to discourage growth: May 1–3, 29, and 30 Find the best days for every month in *The Old* Farmer's Almanac.

guidelines:

- Choose a bud that faces out, away from the trunk or stem, because that's the direction in which you want the new shoot to grow.
- Cut 1/2 inch away from the bud when pruning a small branch or twig.
- Make the cut at an angle, slanting down and away from the bud to which you are pruning back. This way, water will run off away from the bud; if it runs toward the bud, it can cause the bud to rot.
- Feed the tree or shrub after pruning.

HOW TO PRUNE FRUIT TREES

• Prune a young fruit tree to direct the growth of its future structure. Save the branches that will make your tree strongest and most symmetrical and prune the rest.

Wherever a branch meets the trunk or another branch, you want a strong union that forms a wide angle of 45 to 90 degrees, depending on the species. Narrow, V-shape unions are weak and make it easy for wind or storms to damage the tree.

Prune sparingly until after the tree bears fruit, as heavy pruning will delay fruiting.

• Prune a mature fruit tree to encourage and prolong fruitfulness. Pruning leads to larger, better-tasting fruit with higher sugar content.

Thin your tree's branches so that sunshine and fresh air can move freely through them, promoting healthy fruit and discouraging

HOW TO PRUNE APPLE AND PEAR TREES

Mature apple or pear trees should generally have 6 to 10 scaffold branches evenly spaced around the trunk. Smaller branches coming off the scaffold branches should not be so dense that light can not pass and air can not circulate through the tree. After pruning, you should be able to throw a basketball through the tree—but if your tree has been neglected, it may take more than 1 year to get to this point.

On most apple and pear trees, the fruit grows on new shoots on short, woody spurs that bear for a number of years. When an old apple spur stops bearing, bring it back to life by cutting it in half through one of the spur's thickened rings. Thin pear spurs regularly by removing older spurs to make way for new, young spurs.

HOW TO PRUNE PEACH AND NECTARINE TREES

Peaches and nectarines grow on new growth shoots; these bear fruit only once. In the dormant season, prune shoots that have already borne so that your tree will send out new, fruit-bearing ones.

Peach trees tend to fruit excessively, so thin to about one peach for every 6 to 10 inches of branch. Thin after the tree drops some fruit on its own in early summer.



pests and diseases.

Cut back to a bud if you want the tree to grow a new limb at that point. If you are thinning the tree and don't want new growth, make your cut at the crotch where the branch meets the trunk or another branch. Cut close to, but not into, the branch collar, which is the swollen area of bark around the base of the limb.

Prune no more than one-quarter of the live branches per year. If the tree needs more pruning, spread out the job over 2 or more years.

HOW TO PRUNE ROSES

The science of plant and animal life cycles, phenology, advises pruning roses when forsythias bloom in the spring.

Of all rose varieties, hybrid tea roses benefit the most from pruning. These modern everblooming roses flower best on new wood, so prune fairly hard in early spring.

- Prune to halve the plant's height.
- Remove all but four or five of the strongest, healthiest canes.
- Prune the remaining

canes back to leave three to five outward-facing buds. Throughout the blooming season, prune back to the first five- or seven-leaflet leaf below the spent blooms.

• When cutting flowers, cut the length of stem you need, and leave two complete leaves on the cane.

Old rose varieties and shrub roses don't need nearly as much maintenance pruning as modern roses. Just prune lightly to shape the plant if desired in early spring and trim off dead wood as needed. —Andrea Curry



Frugality, Hoarding, and Mindfulness rriving for an out-of-town wedding a couple of weeks ago, I parked my car and stepped out to walk the short distance to the church.

But it felt as if I had something on the bottom of my shoe, and when I pulled it off to look, I saw that the rubber sole was badly cracked and crumbling.

I attempted a fix by ducking into the church basement and connecting with a man who supplied me with rolls of electrical tape and duct tape. But a yard of tape couldn't remedy the damage. The soles were too far gone. I left crumbs of black rubber in the aisle and in the pew and ended up attended the reception in stocking feet.

It had never occurred to me to check the soles before I headed out, so I had no idea that they were in such bad shape. I'd bought them at a thrift store at least a decade ago and worn them hundreds of times. They were the most comfortable shoes that I've ever owned, supple black leather uppers and low-heeled, dense rubber soles—my go-to pair for graduations, weddings, and town meetings.

GROWING UP FRUGAL

I learned my frugal habits from my mother. She was joyously and creatively thrifty in every respect. I still get a good laugh whenever I recall how she got me through high school and college with a single pair of dress shoes and a few cans of spray paint.

I sailed through proms and other formal dances, concerts, weddings—even made an appearance as a bridesmaid—in those shoes. Mom just sprayed them to match each new outfit, and they always looked great. At each outing, however, I prayed that I'd make it home before the cracks began to show. After all, the paint was intended for

things like deck railings and furniture, not fabric shoes that needed to bend and stretch.

FRUGALITY TAKEN TOO FAR?

For decades of adult life, I've bartered, scrounged, saved, reused, and repurposed generally by choice, often by necessity. Anything organic that burns or rots ends up in the garden as mulch, compost, or a soil amendment. The burnables run through the woodstove first, but the ashes go into the garden to help sweeten our acid soil. We save plastic bags, packing peanuts, and insulated mailers. Over the years, I've hauled home discarded pallets, chicken wire, cast-iron cookware, laundry racks, and dozens of other items from the town dump.

The incident with the shoes got me to thinking about the many ways in which thriftiness can go too far. A quick search of the Web turns up many references to hoarding, obsessive thrift, and addictions to "extreme couponing," thrift-store shopping, and yard-selling.

HOARDING? NOT QUITE

A quick check of my house, outbuildings, and grounds revealed that I'd collected a lot of stuff that I don't need and won't use.

I mucked out half a truckload of polystyrene vegetable containers and dozens of yogurt and deli tubs. I use about two dozen of the vegetable containers and another couple dozen tubs each year for seedstarting/transplanting. I cut the bottoms off the vogurt tubs and use them as cutworm collars to protect garden transplants from the nasty larvae. But I'd collected hundreds of them, many from friends and acquaintances. Off to the dump!

I emptied the clothes closets of anything we hadn't worn for a year. That included a dozen pairs of shoes that I like to look at but don't wear because they're either uncomfortable or not practical. Off (or I should say, "back") to Goodwill!

Next, I'll tackle the stuff behind those knee walls in the attic, a repository of child sleeping bags and the backyard tent, "extra" pillows and old comforters the mice and squirrels have chewed apart for nesting materials, and 20-yearold electronics that we've never gotten around to recycling.

Later, I'll tackle the barn and outbuildings, a daunting project.

TRUE FRUGALITY

"Frugality" embraces a rich assortment of meanings gathered during its evolution from an ancient Proto-Indo-European root word, which meant both agricultural produce and to use and enjoy. This root gave rise to the Latin roots *frux*, meaning fruit, with associated figurative meanings such as value,

success, and profit, and fructus, which figuratively embodies the meanings of enjoyment, delight, and satisfaction, in addition to its literal meanings of fruit and crops.

We should add the notion of mindfulness to the definition of true frugality, which, whether chosen or required by circumstances, demands attention and care.

By its nature, frugality implies not just usefulness and delight, but also use. Hoarding, addiction, and obsession rob any behavior of its joy and may prevent actual use. At some point, the habit takes control, and the virtues of true frugality disappear.

The English poet William Blake wrote, "You never know what is enough unless you know what is more than enough."

Enough said!

-Margaret Boyles





Let's Bake!

Today, with our desire for convenience, baked goods made from mixes are common, and cakes from bakeries, including those in grocery stores, are the norm. Here you'll find recipes to entice you to put in the extra time and effort needed to make something delicious from scratch.



PHOTO: TIMOLINA/SHUTTE



PHOTO: SAM JONES/QUINN BREIN





CAKE:

- 3 squares (3 ounces) unsweetened baking chocolate
- 1-1/3 cups strong coffee, divided
- 3/4 cup (1-1/2 sticks) butter, softened
- 2-1/4 cups brown sugar
- 2 eggs
- 1 teaspoon vanilla extract
- 2 cups sifted all-purpose flour
- 1 teaspoon baking soda
- 1/2 teaspoon salt

FROSTING:

- 3 squares (3 ounces) unsweetened baking chocolate
- 1/4 cup (1/2 stick) butter, softened
- 4 cups sifted confectioners' sugar
- 1/4 teaspoon salt
- 1/3 to 1/2 cup strong coffee
- 1 teaspoon vanilla extract

Preheat oven to 350°F. Butter two 9-inch cake pans and line with parchment paper.

For the cake: In a pan over low heat, melt chocolate in 1/3 cup of coffee, stirring constantly. When melted, set aside to cool slightly.

In a bowl, cream together butter and brown sugar. Add eggs, one at a time, and beat well. Add vanilla and blend in chocolate. Beat well.

In a separate bowl, combine flour, baking soda, and salt. Add dry mixture alternately with the remaining 1 cup of coffee, mixing just enough to combine, by hand or on lowest mixer speed.

Pour batter into prepared pans and bake for 30 minutes, or until a toothpick inserted into the center comes out clean. Cool for 10 minutes in pans, then remove and cool on a rack.

For the frosting: Melt chocolate in a double boiler. Add butter and stir until blended. Pour into a bowl. Beat in confectioners' sugar and salt alternately with a few drops of strong coffee at a time until frosting reaches the proper consistency. Beat in vanilla.

Spread frosting between cake layers and on top and sides.

Makes 1 cake.





The Tuneful Tale of "Taps"

How a back-of-an-envelope inspiration became an anthem

ver wonder about the bugle call performed on Memorial Day and Veterans Day and at almost every military funeral?

By the start of the U.S. Civil War (1861–65), Daniel S. Butterfield, a successful New York City lawyer and financier, had been a member of the New York militia since 1854. He soon found himself going into action as a colonel of the 12th New York, leading his troops across the historic Long Bridge from Washington, D.C., into Virginia.

Butterfield became a brigadier general and then a major general. At times, he served as chief of staff for generals Joseph Hooker and George Meade. A man of spirit and courage, Butterfield would be awarded the Congressional Medal of Honor for his actions at the Battle of Gaines's Mill, Virginia, on June 27, 1862.

But his very considerable talents were not all tactical or



administrative. He had a creative bent. Among other things, he was the originator of the "shoulder patch," or badge, which he designed to identify the soldiers of his unit and which is now in use by armies all over the world.

Although without formal musical training, Butterfield had an extraordinary ear for music, and he indulged that instinct by composing trumpet calls: first, variations of some of the regular calls; later, original compositions. In the first case, necessity was the mother of his creativeness, for, in the maelstrom of battle, he often found his brigade responding to other brigade calls and vice

versa. At times, the confusion was costly. His revision of the calls put an end to that.

"TOO FORMAL"

One night in July 1862, while with Maj. Gen. George McClellan's army at Harrison's Landing, Virginia, Butterfield was in the company of Brig. Gen. Daniel Sickles and several other officers. (The Landing is the site of Berkeley Plantation, where more than 100,000 soldiers camped for 45 days in the summer of 1862.) When the bugler sounded the final call of the day—"Extinguish Lights"—Butterfield listened critically. "I don't like the sound of that call," he said. "It's too formal. More like a trumpeting welcome to a foreign potentate than a soldier's good-night."

In the morning, after mail call, Butterfield scribbled some musical notes—a revision of an old French bugle call—on the back of an envelope and then summoned the brigade

HISTORY

bugler, Pvt. Oliver W. Norton, of the 83rd Pennsylvania Infantry.

Butterfield handed
Norton the envelope and
asked him to blow the
notes. Not quite satisfied
with the first trial,
Butterfield made a minor
correction and gestured
for Norton to repeat the
call. Again, he changed
a note or two—the
composition had 24 notes
in all—and that was that.

After the bugler had spent 2 days familiarizing himself with the new call, which had been tentatively titled "Lights Out," Butterfield ordered it used as the last call of the day in his brigade.

A CALL FOR ALL

A short time later, the call was first played at a military funeral, a service for a Union cannoneer killed in battle. Capt. John Tidball, the soldier's commanding officer, chose to honor the man with Butterfield's call instead of the customary three rifle shots. He did not want the nearby enemy to interpret the

volleys as the beginning of an attack.

The appeal of Butterfield's call can not be overstated. No other unpublished piece of music in history ever spread with such rapidity. Within a matter of weeks, it had been adopted by all Union armies in the East, and within a month or two—thanks to captured buglers or merely by virtue of having had its mystical strains heard as they drifted over enemy lines at night—the call became official in all of the camps of the Confederates as well. There may have been profound political and economic differences between these men, but there was never a doubt about the universal beauty of the call.

HOW "TAPS" GOT ITS NAME

Prior to Butterfield's arrangement, the lights-out bugle call for soldiers, known as "The Taps," was concluded with three drum beats, aka "Drum Taps." When Butterfield's treatment

replaced this, the name "Taps" stuck—but unofficially. In American military manuals, the call was known officially as "Extinguish Lights" until 1891.

HOW "TAPS" UNIFIED CIVIL WAR VETERANS

A quarter of a century after the titanic struggle at Gettysburg, a reunion of veterans of both the North and South took place there. Soldiers who had survived those three terrible July days came from all over the land. But even after the passing of the years, there still remained a considerable residue of bitterness, as tramping over the familiar fields brought back memories. For a while, it appeared that the reunion might fail in its purpose of reconciliation.

Late on the second day, a bugler—his name now lost to obscurity—went to Little Round Top, stood at attention, raised his trumpet to his lips, and blew Butterfield's call.

HISTORY

As the notes sounded over the Peach Orchard and onto grim Cemetery Ridge, to echo across Willoughby Run, re-echo on Culp's Hill, along McPherson's Ridge, and then over Big Round Top, every veteran came to attention, listening. A little of the grimness left their faces. A kind of hope fought with old fears and hatreds. When the final note had died away, groups coalesced and moved in unison toward Little Round Top, instinctively answering that "last call."

There had been no rehearsal; the bugler's action had been personal and spontaneous. But as a result, softening attitudes were everywhere apparent. Gone was talk of victory or defeat at Gettysburg. Talk was of the heroic dead, of the tragedy on both sides, and soon there was talk of no sides at that reunion.

General Butterfield himself was one of those present. His papers show how that sounding of his call by the unknown bugler had affected him. "Somehow," he wrote, "in a way that I can not explain, it removed from my mind the last trace of bitterness carried over from the battlefields. When I reached Little Round Top, I saw no blue or gray uniforms, just . . . old comrades."

"COMFORT AND PEACE"

Butterfield died on July 17, 1901, and became one of the few soldiers not graduated from West Point to be interred there. He was buried with full military honors, and his tomb is the most ornate in the cemetery—yet there is nothing on it that mentions "Taps" or Butterfield's association with it. (A monument at Berkeley Plantation commemorates the call's origin.) Curiously enough, because of its rock formations, the Point is perhaps the finest place in the world to listen to the call of "Taps."

It was inevitable that "Taps" should come to be sounded over the

graves of soldiers and sailors. Its dignity, its majesty, and the fact that it is the "last call of the day" made such use a foregone conclusion. But to regard it in any sense as a dirge would not be the correct appraisal. At least, that would not be Butterfield's appraisal. Though sad in the sense that twilight is sad, the overtones are reassuring.

Butterfield said that he meant the call to be one of "comfort and peace" to the soldier, no matter how hard the fighting, how exhausting the forced marching or other harassments. This was his call to rest, to serenity and faith, implicit in its assurance of renewed strength with the coming of dawn. All this from two brief lines of musical notes scrawled on the back of an envelope: a call that can be identified around the world by its first three notes.

> -based on an article by Frank Mullady and William H. Kofoed, The Old Farmer's Almanac,



TAP TO FIND OUT THE WEATHER HISTORY OF THE DAY

LOVE ALL THINGS WEATHER? TAP FOR THE WEATHER FOLKLORE OF THE DAY A MAY FLOOD NEVER DID GOOD.

HOW WE MAKE OUR PREDICTIONS

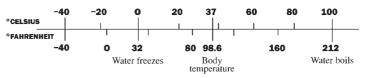
We derive our weather forecasts from a secret formula that was devised by the founder of this Almanac, Robert B. Thomas, in 1792. Thomas believed that weather on Earth was influenced by sunspots, which are magnetic storms on the surface of the Sun.

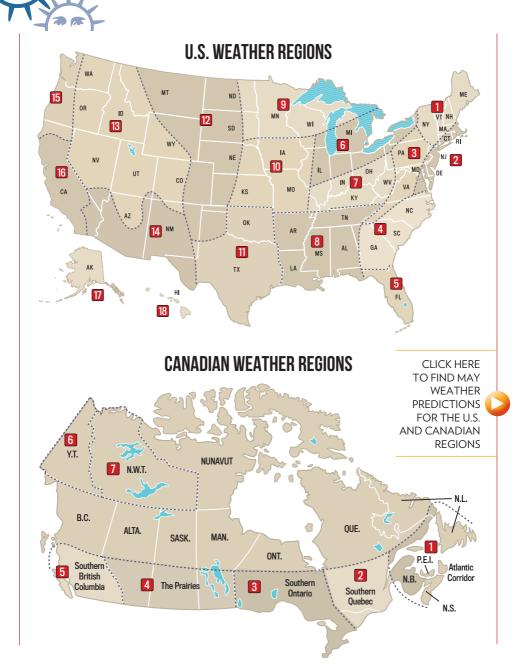
Over the years, we have refined and enhanced this formula with state-of-the-art technology and modern scientific calculations. We employ three scientific disciplines to make our long-range predictions: solar science, the study of sunspots and other solar activity; climatology, the study of prevailing 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.

CELSIUS-FAHRENHEIT TABLE





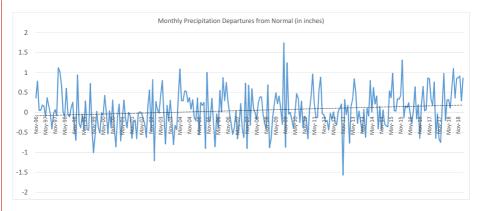


Figure 1. Monthly precipitation departures from normal, 1996–2018

WHAT'S UP WITH THE RAIN?

hile computing the verifications for this past winter in the spreadsheet that I use with all of the forecasts and verifications for *The Old Farmer's Almanac* for the 23 years when I have been responsible for making these forecasts, it occurred to me that I have a database with a great deal of information that might be useful in looking at trends.

Last month, I moved the data around within the spreadsheet to be able to create graphs showing how temperatures have changed over the past 23 years. This month, I am doing the same with precipitation.

Before we get to the graphs and discuss what they might mean, let me first explain exactly what information they are based upon. As you may realize, each year we forecast the coming year's weather for 18 United States and 7 Canadian regions. These regional maps in *The Old Farmer's Almanac* print editions and on Almanac.com each show several cities; it is these locales for which I have compiled data on actual precipitation and how it has departed from normal.

LOOKING AT THE GRAPHS

• When we examine the graph showing the **monthly departure of precipitation from normal** (*Figure 1*), it is not immediately obvious (at

TAP FOR **DETERMINING DEPARTURES**FROM "NORMAL"

DETERMINING DEPARTURES FROM NORMAL

When I show that the precipitation departure for December 2018 was 0.91 inches, this means that the average of all of the cities shown on all of the Almanac's regional maps for the United States and Canada was 0.91 inches more precipitation than their most recent official 30-year normals, which cover the period of 1981–2010.

The "normal temperatures" that I use are the official ones updated once each decade by the United States and Canadian government meteorological services, based upon smoothed averages of daily temperatures for the past 30-year period.

So if I say that 2019 precipitation is 1 inch above normal, this "normal" is different than if I say that the 2009 precipitation is 1 inch above normal, because over the ensuing decade the "normal" precipitation has been recalculated and changed. And, while precipitation normals have changed in recent decades, the change has been far less than the changes in normal temperature, which have generally been rising.

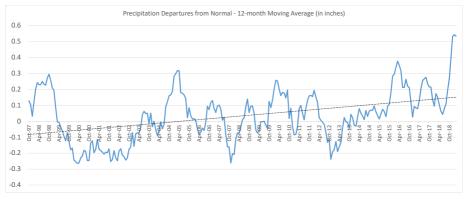


Figure 2. 12-month moving average of monthly precipitation departures from normal, 1997–2018

least to me) that there is any trend in these departures.

We see that many of the months have below-normal precipitation and many have above-normal precipitation. The greatest positive departure was 1.75 inches back in October 2009, while the greatest negative departure was -1.57 in November 2012.

However, although the trend is not immediately obvious, when we add a linear trendline to the monthly departure graph (the dashed black line is the linear trendline, which is the best-fit straight line that is used with simple linear data sets), it does show that precipitation departures have been trending upward over the past 23 years.

• When we examine the **12-month** moving average of these departures (*Figure 2*), their pattern becomes somewhat more apparent, although

we need the trendline to confirm that the trend is definitely toward increasing precipitation.

Why has precipitation been increasing, on average, across the United States and Canada?

Meteorologists and climatologists have proposed various explanations for the month-to-month and annual variations in both precipitation and temperatures, including teleconnections such as El Niño, changes in ocean currents, and changes in solar output.

As for the general trend of rising precipitation over the past decades, the trend is small enough and has enough variation to suggest that this could just be coincidence. Or, alternatively, this could be due to the trend of rising temperatures that we examined last month. Warmer air can hold more water vapor, which means that there

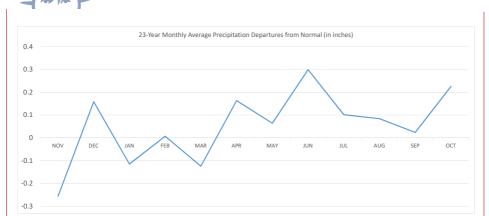


Figure 3. 23-year monthly average precipitation departures from normal

is potential for higher amounts of precipitation. Thus we might expect that some of this potential could be realized, resulting in a slight upward trend in actual precipitation—which is indeed what the data shows.

• Finally, let's look at the monthly average departures from normal (Figure 3), to see if there are any seasonal trends. While November precipitation has been below normal over the past 23 years, precipitation in its adjacent months, October and December, has been above normal—so there does not seem to be an important trend there.

But when we look at the seasons, we find that winter season precipitation (November through March) has averaged 0.07 inches below normal, while all of the other seasons have precipitation averaging between 0.11 and 0.16 inches above normal.

Since warm air can hold more water

vapor and temperatures have trended upward, we might expect precipitation to be above normal during the summer season and perhaps during spring and fall as well. We might expect higher precipitation during winters as well, since temperatures in that season have also trended upward, but it's important to remember that most winter-season precipitation is triggered by temperature contrasts—storms that form because warm and cold air clash.

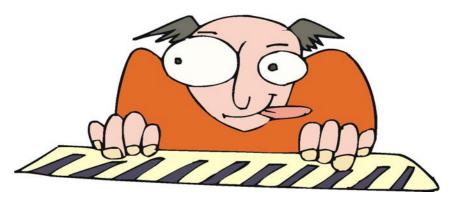
Because winter temperatures have warmed much more at the poles than in the tropics, it appears that the lower temperature contrasts have more than offset any increase in precipitation due to the ability of warmer air to hold more water vapor—resulting in a lowering of winter-season precipitation.

-Michael Steinberg, Old Farmer's Almanac meteorologist



HUMOR ME

GRINS AND GROANS FROM THE ALMANAC



SWIMMINGLY

Byron swam the Hellespont;

Ederle, the English Channel.

I merely waded in the lake,

And I'm all wrapped up in flannel.

TOP THIS!

A village youth, somewhat full of himself, saw a local hauler with a big wagonload of manure. "Whaddya gonna do with all that manure?" the youngster asked.

"Well, I'm gonna take it home and put it on my strawberries," said the man.

"You must be crazy," said the boy. "Momma always puts sugar on mine."

ON THAT NOTE . . .

After the company had gone, the couple was cleaning up.

Said the wife: "Why did you sit on the piano stool all evening while our guests were here? You know that you can't play a note."

Husband: "I know but neither can anyone else if I'm sitting there."

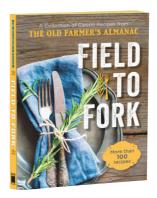
BIBLICAL CAT TALE

Sunday school teacher: "I read in the paper of some naughty boys who cut off a cat's tail. Can any of you tell me why it's wrong to do such a thing?"

Pupil: "Because the Bible says, 'What God hath joined together, let no man put asunder."



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birthstones and -flowers,
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Eye on the Sky, June trivia
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