



Arizona Herb Association

February 2025

A Publication for Members & Friends

<http://www.azherb.org>

Dear Herbies,

Ahhhh February! Often thought of as a month for love. Show your garden some love this month. Fertilize your citrus around Valentine's Day. Buy a tomato plant at the Master Gardeners Tomato class and plant sale. There is still a chance of frost though, so protect your new friend. Later this month you can start amending the soil in preparation for spring planting. Show yourself some love; sit down with a cup of herbal tea and your favorite seed catalogs to plan your garden and order your seeds.

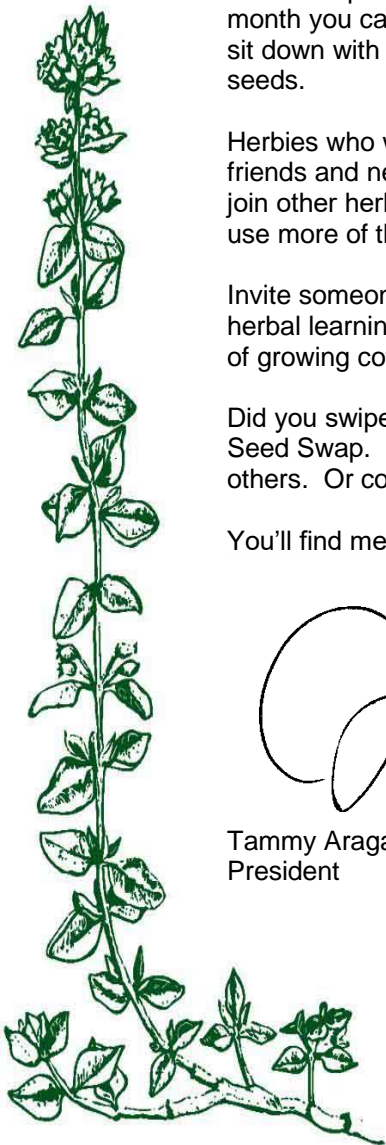
Herbies who would rather spend their time in the kitchen than the garden can show their love to friends and neighbors by preparing herbal delights - foods, salves, potpourri - and sharing them. Or join other herbies at this month's culinary. The theme is "Foods of Love and Kindness." Who couldn't use more of that?

Invite someone else who loves herbs to help in the demonstration garden. Hands down the best herbal learning experience around. Or maybe bring them to our meeting. I will share my experience of growing cotton and our main speaker is Lindsey Stevens of ASU West.

Did you swipe right and match and now you're looking for an interesting date idea? Two words - Seed Swap. Come to the Sunset Library on February 8th and share seeds and gardening tips with others. Or come by yourself and meet other people who share your interests.

You'll find me singing in my garden,

Tammy Aragaki
President



AHA President Tammy Aragaki hosted the AHA Board and support chairpersons for the first board meeting of the year on January 22, 2025. Photo by Mike Hills.

Calendar

February 2025

Saturday, February 1: Weed & Feed
Time: 8:00 a.m.

Thursday, February 6: General Meeting
Location: MCC Extension; Time: 7:00 p.m.
Topic: ASU's West Valley Gardens
Speaker: Lindsey Stevens
Herb of the Month: Cotton
Presenter: Tammy Aragaki

Saturday, February 8: Sunset Library Seed Swap
Time: 9:30 a.m. to 11:30 a.m.
Details on page 3

Saturday, February 15: All Things Tomato!
Tomato Classes: 9:00 a.m. to 11:30 a.m.
Tomato Sale: 11:30 a.m. to 1:00 p.m.
Details on page 3

Saturday, February 15: Culinary Event
Theme: Foods of Love
Hosts: Susan and Eric Adamczyk
Sign up at AHA website <https://azherb.org/>

Saturday, February 22: Phoenix Seed Swap
Time: 10:00 a.m. to 2:00 p.m.
Details on page 13

March 2025

Thursday, March 6: General Meeting
Location: MCC Extension; Time: 7:00 p.m.
Topic: The Traveling Gardener
Speaker: Master Gardener Linda Larson
Herb of the Month: Cardamom
Presenter: Diane Knudsen

Saturday, March 8: Weed & Feed
Time: 8:00 a.m.

Saturday, March 22: Culinary Brunch
Hostess: Annie Alvarado
Theme: Cowboy Cooking



DBG Spring Plant Sale
Thursday, March 13: Member's Day
Friday, March 14– Sunday, March 16
Time: 7:00 a.m. to 3:00 p.m.
Reservations required

Boyce Thompson Arboretum Spring Plant Sale
Friday, March 14 – Member Preview Sale
Saturday, March 15 – Sunday, March 30
Time: 8:00 a.m. to 5:00 p.m.

February General Meeting

The West Valley Gardens is a campus garden at Arizona State University's West Valley campus in northwest Phoenix. The garden is a centerpiece of the campus and is a popular venue for events and celebrations. It features raised garden beds, lush landscaping, fountains, and outdoor spaces.



Our February speaker, Lindsey Stevens, will introduce us to this new community garden.



In 2025, our Herb of the Month theme is "**Invigorate the Senses.**" February's Herb of the Month presentation features our newly elected President Tammy Aragaki. She has chosen the herb cotton and we will certainly "cotton on" to our time together as we learn about this herb.

Snacks are always appreciated for our meeting break; a recipe or ingredient list helps those with dietary concerns. Bringing your own table service helps reduce our carbon footprint.

If you can't attend in person, you can join us via Zoom at the link below.

Topic: February AHA General Meeting
Date: Thursday, February 6, 2025
Meeting begins promptly at 7:00 p.m.

Join Zoom Meeting

<https://us06web.zoom.us/j/81288082383?pwd=ciryfLjJUduyspcmvTEELZcfH705tb.1>

Meeting ID: 812 8808 2383
Passcode: 088744

Banner Photos: February brings us Brittlebush blooms (see Page 3 for more about this harbinger of Spring), Statice, Valentine Bush (a native that blooms around Valentine's Day), bees loving the Conehead Thyme and one of the best "weeds" to love for its medicinal properties, and it is fun to eat—Chickweed.

Photos by Lee Ann Aronson

Chandler Sunset Library Spring Seed Swap

Details:

4930 W Ray Road
Chandler, AZ 85226
9:30 to 11:30 a.m.



Spring planting season is fast approaching! Visit the Chandler Sunset Library on Saturday, February 8 from 9:30 to 11:30 a.m. and share seeds, seed starts, and plant cuttings with your neighbors. Meet local gardeners, Master Gardeners, and other community members with the expertise to help you start or maintain your desert garden, conserve when and where you can, and more! You can participate even if you do not bring seeds. Envelopes and markers will be provided. All ages are welcome! There will be a prize raffle to win a desert gardening book! Kathy Eastman and Lee Ann Aronson will host a table for AHA.

All Things Tomato: Talks and Plant Sale February 15, 2025 Attend the class, stay for the sale.

Maricopa County Cooperative Extension
4341 E Broadway Road
Phoenix, AZ 85040

Tomato Talks \$15 **9:00 a.m. to 11:30 a.m.**

Join us for classes on planting and care of tomatoes, and on companion herbs to help you be successful in growing tomatoes in our low desert climate.

9:10 to 10:00 a.m. Tomato Selection, Planting, and Basic Care
10:00 to 10:20 a.m. Starting Seeds
10:20 to 10:30 a.m. Break
10:30 to 10:50 a.m. Tomato Herb Buddie
10:50 to 11:30 a.m. Tomato Pests and Diseases

Please note that the times for all talks are approximate. We encourage you to come at 9 am and plan to stay for all the talks! Learn first, then shop! We will have the tomato sale open at the conclusion of the last talk.

Tomato Plant Sale

11:30 a.m. to 1:00 p.m.

If you can't join us for the class, reserve your shopping spot for tomato plants, ask questions about your garden, tour the herb beds, visit the stations in the garden.

Reservations required. This event is non-refundable.
<https://events.trellis.arizona.edu/en/f44INu67/all-things-tomato-talk-and-plant-sale-5a3U6R3C29L/overview>

Welcome New AHA Members:

Joan Baron
Zip Code: 85257

Roxanne Gabriel
Zip Code: 85224

Trish Sanders
Zip Code: 85016

Mary Moore
Zip Code: 85022

Mitch Jackson
Zip Code: 85358

Keo'vonne Wilson
Zip Code: 85029

AHA Jane Haynes Scholarship Winner
Peggie Chrichton
Zip Code: 85282

Michael Eichstadt
Zip Code: 85375

Vicki Baltierra
Zip Code: 85044

Meka Joi Allen
Zip Code: 85013

Sheradan Hartman
Zip Code: 85387

Allison Matthees
Zip Code: 85054

Perry Green
Zip Code: 85225

Tammy Aragaki, Membership Committee



Hello Spring, Hello Brittlebush

It is almost impossible to best native southwest plants for providing spectacular springtime floral views. The first of many to do so is the amazing brittlebush, *Encelia farinose*. This perennial plant is so prolific that most are barely noticed unless they become uninvited guests in our landscape, splayed across the grand vistas of the Sonoran or warmer areas of the Mojave Desert carpeting south-facing dry rocky mountain slopes up to 4000 feet. Found in many parts of Arizona, Utah, Nevada, California and

Mexico, these desert-adapted perennials typically will not grow in sandy or clay soils or shady areas.

This shrub, a member of the Asteraceae family, produces fuzzy, silvery leaves, a gustatory favorite of bighorn sheep and mule deer, showcasing radiant yellow flowers. These blossoms, giving the appearance of the plant's very own bouquet, are suspended by long, narrow straw-like stems over a 2 to 5 feet tall rounded bush. Sometimes a break in the fragile stem will cause the plant to "weep" a fine sap. When dried, the watery fluid resembles little droplets which crystallize into tiny yellow beads of resin.

Medical uses of the resin and various other plant parts have been documented for many centuries. Desert dwellers used the sap in many medical, spiritual, and pragmatical ways. Ingested sap has been reported to aid respiration by loosening mucus. Problems associated with congestion, hay fever, allergies, and headaches have long been treated with tea or tincture brewed from the plant's leaves.



Brittlebush
Photo by Lee Ann Aronson

A poultice made from fresh brittlebush flowers was applied as a medical treatment for open wounds. Brittlebush also holds some promise for individuals with joint pain, e.g., arthritis. Due to the plant's anti-inflammatory and anesthetic properties, pain is reduced and healing is stimulated.

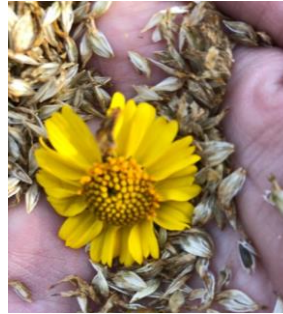
Twigs, when chewed, reportedly can be used for earaches, cold sores and issues like sore gum and toothaches. The Seri

treated toothaches with brittlebush stems. The sap was used to cement broken or loose teeth and reduce gum disease.

Brittlebush has a long record of association with cultural and religious traditions. Once again resin comes into play. This organic based sap is very fragrant when plucked. When burned, the sap produces a spicy floral aroma said to be more fragrant than frankincense. In fact, one of the brittlebush's common names is *incienso*, which translates from Spanish to incense. A quick mental jump lands on aromatherapy.

Resin has multiple other uses, such as being converted to varnish and glue. The yellowish-brown resin is most sticky when collected from the base of

the plant. The super sticky sap was used by the Seri to seal pottery. This substance was also used as chewing gum.



Brittlebush flower and seed.
Photo by Mike Hills

As can be seen, the rapidly colonizing brittlebush has much to offer. Given winter rains and an abundance of insects for pollination, the plant produces tiny seeds, a much-beloved, tasty meal for local rodents.

On a windy day, the seeds can travel as easily to a home in the desert as to your yard. Once established, a brittlebush is likely to be with you for quite a while. Their estimated life span of between 20 to 30 years can provide cheerful blooms outdoors and long-lasting indoor cut flowers. In fact, some say the fragrant blossoms will dispel negative energy and enhance feelings of positivity...who can resist this offer?

By Kathleen McCoy
Herbies, Master Gardener and Master Naturalist

AHA 2025 Program & Herb of the Month Notes from 1st V.P. Shay Emmers

Jan	Shay Emmers Blue Sky Farm	Kathy Eastman - horseradish
Feb	Lindsey Stevens ASU West Garden	Tammy Aragaki - cotton
Mar	Linda Larson/Journey of 1,000 Gardens	Diane Knudsen - cardamom
Apr	Joann Sanchez/ Desert Medicine	Bernie Arnecke - nasturtiums
May	Scholarship Winners	Shay Emmers – Herb of the Year chamomile
Jun	Dr. Ken Sweat/Hemp	Pam Perry
Jul	No meeting	No meeting
Aug	No meeting	No meeting
Sep	Brittney Sounart	Liz Lonetti
Oct	SWIHA student presenters	Mike Hills
Nov	Liz Lonetti Day of the Dead	Timorie Coleman
Dec	Holiday party	Holiday Party

Blue Watermelon Project

Our Past President, Pam Perry is featured in two Blue Watermelon Project YouTube videos that were released in January. Blue Watermelon is an organization that works with students, parents and the community in Phoenix and Tucson to educate

and foster healthy food options.



Pam talks about growing broccoli in the video with Chef Matt Pratta, Culinary Director for Sprouts Farmers Market, demonstrating how to make “Crispy Smashed Parmesan Broccoli.” (Hint:

If you make the smashed broccoli, consider using gluten-free panko bread crumbs made with rice flour for a crisper result.) She shares tips on planting cauliflower in the video with Chef Justin Beckett, chef and owner of Beckett’s Table, showing how to prepare “Roasted Cauliflower.”

Find the videos on YouTube here:

<https://youtu.be/7KJidvhy9w>

https://youtu.be/raP7cq0_k-4

More about Blue Watermelon Project here (the videos are under the ‘Resources’ tab):

<https://www.bluewatermelonproject.org/>

By Kathy Eastman

Weed and Feed January 2025

Gathering in the early chill, we looked at the many samples of blooming lavenders from the garden and discussed their various attributes and down sides. Lavenders can be challenging to grow; this is a good time to plant them. Weeds are few on the ground this year of little to no rain, and not competing with seeded selections.

We have seen few larkspur or poppies although lots of seed has been scattered...even in the vegetable garden germination is a bit thin.



Alfalfa is blooming in the garden. It is a dye plant, used to color fiber, makes a tea with helpful benefits, and is a major crop for many Arizona farmers. It is also a legume, and like other legumes has the capacity to transform atmospheric nitrogen and store it in nodules on the roots for use as the plant matures and blooms. Legumes, as cover crops tilled into soil before plants bloom, add nitrogen to the soil not only through the roots, but also from the green leaves and stems of the plants. We shared donuts

and oatmeal butterscotch cookies; thank you folks who brought them.

We broke into groups, some folks to begin seed cleaning, while others traveled a couple miles and retrieved a picnic table donated by Mindy! Mike, John, Liz, her son Quin and exchange student Marvin helped relocate the table to the Extension Office grounds. It joins the concrete table AHA placed on the grounds a couple of decades ago, recently moved from a location of long standing on the west side of the Ocotillo room to the east side near the employee parking lot. Land on the west side of the county 6-foot fence is being used for other purposes



Mindy, shown with her donation of a garden table and benches, which were resettled into our garden by January volunteers.

Photo by Mike Hills

A walk through the garden identified some areas needing attention. Sandy and fellow Herbie Michele waded into the

Palmarosa grass on the east side under the twisted myrtle. The flowers were ratty, seasonal dieback had occurred; it needed some help. After removing dead stuff,

collecting some material for propagation, and filling in the gaps with compost, the plant looks great! What a difference a morning will make! The flowers and leaves are fragrant, smelling of roses! Commercially essential oils are distilled from this plant’s leaves to be used in the fragrance, cosmetic and soaps industries.



Annie brought us some coconut coir. She had ordered some and found she had way more than she could imagine using in the foreseeable future. Thank you, Annie. A sustainable, renewable resource, this is a product of processing coconuts for oil, water, and coconut flesh.

Around the corner a few more saffron crocuses found a home under the chaste tree, which got a little pruning. Further down the line Madeline Hill

rosemary was cut back, and the germander, *Teucrium fruticans*, had its seasonal haircut in advance of the migrating sparrows that like to nest within its shrubby safety. The pink *Pavonia* also got a haircut. A tall, gangly, unruly native, this plant, if clipped a couple times early, becomes a hedge that blooms early every morning with lovely pinkish white flowers with dark centers. The Turk's Cap hibiscus had a haircut; the creosote and the Mexican oregano will get a little more light, air and space until it again needs restraining....

The two shrub roses have mostly recovered from the heat of fall and summer. Plants that make tidy gardeners shudder, and their fingers itch to prune them back, will be happy so see them lush and glowing with flowers. Hybrid roses get hard pruning in January, shrub roses maybe get a little rejuvenating pruning with one or two of the oldest canes removed. Followed by fertilizer applied at recommended rates, they are set for a floriferous spring.

The asparagus has been cut to the ground as it is a deciduous plant. Cutting it back to the ground in winter allows gardeners to find newly emerging spears in March or April for harvest. Another herbaceous perennial that lives here is *Perovskia atriplicifolia*, Russian sage in common parlance, now known as *Salvia yangii*. Cut back hard in January, it comes back full and lush, with late summer through early winter flowers, keeping our pollinators happy!

Mike and Pam conferred and one large branch of the *Dodonaea*, or hopseed bush was removed, and some thoughtful pruning was begun on the little, not so much anymore, elephant tree. Seeds were cleaned. With little in seed making mode this winter we had few to collect, but we are eyeing several potential candidates. Keith and Donna were with us to check signage and irrigation and lend a hand as needed. Thank you all who helped, the garden looks great, grows well, and we look forward to seeing you all again on Saturday, February 1st.

Pam Perry and Mike Hills, Demo Garden Captains

From the Membership Chair... Did you know?

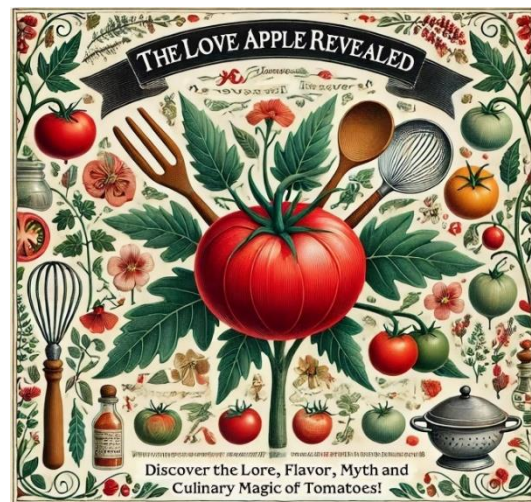
Did you know that ALL memberships expire on December 31 with one exception - if you joined in October or November, your membership expires 12/31 of the **following** year. You essentially get 13 or 14 months for the price of 12. For all of the rest of us, regardless of the month you joined, your membership will come up for renewal January 1st.

This is especially important since we now have an automated membership system. A 60-day grace period has been programmed in, but after that time you will not be able to login to the members only portion of the website to view or register for any events that are restricted to members.

To easily renew online go to www.azherb.org, login to your account and scroll down to "renew." You may also renew by mail or in person at any Herbies meeting. Do it now - we have a wonderful lineup of events for 2025 and you won't want to miss a single one.

Tammy Aragaki, Membership Chair

A Love Affair with the "Love Apple" Unraveling the Mysteries & Myths of the Tomato



Hello my Herbie friends! At our January meeting, we talked about tomatoes already blooming and putting out fruit during our unseasonably mild winter this year – this winter has been crazy warm and many of our plants that might succumb to the cold are instead thriving. While this article is about tomatoes, I'm not going to talk about how to grow or propagate tomatoes or give cultivation tips because all that and MORE will be discussed in detail at the Master Gardeners "All Things Tomato Workshop and Tomato Plant Sale" on Saturday, February 15, 2025.

"All Things Tomato" will be a celebration of the incredible diversity of tomatoes and their relatives in the Solanaceae family, from peppers to eggplants. While you're there, be sure to stop by the Herb Association booth, or better yet, volunteer to help out at the booth! In the meantime, let's dive into the Lore, Flavor, Myth and Culinary Magic of Tomatoes!

The tomato (*Solanum lycopersicum*) is one of the most beloved ingredients in kitchens around the

world, yet its history is steeped in intrigue, misunderstanding, and surprising facts. From its evocative nickname, "love apple," to the persistent myths about its toxicity, the story of the tomato is as rich and layered as its flavor.

With a nod to the theme for this month's February culinary, Foods of Love and Kindness, the tomato's romantic nickname likely originated from the French *pomme d'amour*, meaning "apple of love." Early Europeans believed tomatoes had aphrodisiac properties due to their bold red color and exotic appearance. Another theory suggests the name came from *pomi dei Mori* (Moorish apple), reflecting its New World origins.

Grandma's Seeds of Suspicion

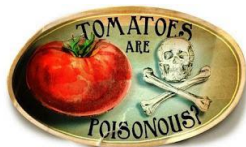
My Grandma Gladys Jurgenson (born 1913) had strong opinions about cooking, and one conversation stands out in my mind. She insisted that tomato seeds were poisonous and was genuinely terrified for me that I would consider eating them. She told me all the seeds needed to be removed before using tomatoes in any recipe. I remember looking at her in disbelief - gob smacked - I'd never heard of tomatoes being poisonous! That moment sparked my curiosity, as I wondered how she could have possibly come to that belief! I began researching and found out that the fear of tomatoes as toxic was once widespread, and that this fear persisted in my grandma, who was raised on a small family farm in Minnesota and came of age during the Great Depression.



From Poison to Pantry Staple

The tomato's journey began in the Andean region of modern-day Peru and Ecuador, where wild varieties of *Solanum* species grew. Indigenous peoples cultivated and eventually domesticated these small, berry-like fruits. When the Spanish encountered tomatoes in the Aztec markets of Mesoamerica, they were astonished by their culinary potential. The Aztecs called them "tomatl," which referred to the plant's fruit.

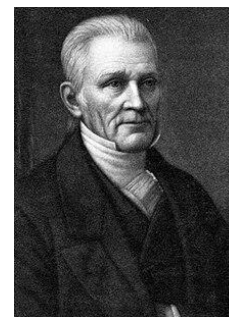
When tomatoes were introduced to Europe in the 16th century, they were met with suspicion. As members of the Solanaceae family (which includes deadly nightshade), the entire tomato plant was assumed to be poisonous. This fear wasn't entirely unfounded—tomato leaves and unripe green tomatoes contain alkaloids like tomatine and solanine, which are known to be toxic in large quantities.



Though often considered synonymous with Italian cuisine, the first European tomato recipes didn't appear until 1692, in a Naples cookbook. Even then, tomatoes were used sparingly as a garnish or in sauces rather than as the star ingredient. Interestingly, the fear of tomatoes persisted well into the 18th century. One contributing factor was the use of pewter plates among the European aristocracy. High-acid foods like tomatoes could leach lead from the pewter, causing lead poisoning and possibly reinforcing the belief that tomatoes were dangerous. Even today, we are cautioned against cooking high acidic foods in our aluminum or cast iron pots and pans. Stainless steel, ceramic, or glass cookware are all better choices for cooking tomatoes.

The Great Tomato Scandal of 1820

According to legend, Col. Robert Gibbon Johnson (image right), a New England horticulturist with a flair for the dramatic, decided to put the tomato's bad reputation to rest in spectacular fashion. On June 28, 1820, he took to the courthouse steps of Salem, New Jersey, and boldly announced he was going to eat a basket of tomatoes in front of a crowd of horrified onlookers.



Despite dire warnings from his doctor, - who insisted "The foolish colonial will foam and froth at the mouth and double over with appendicitis. Should he by some unlikely chance survive, his skin will stick to his stomach and cause cancer" - the colonel proceeded to eat every single tomato. To add to the spectacle, Johnson even hired a small band to play as he ate.

Hundreds of stunned spectators watched, fully expecting to witness a man meeting his doom via "poisonous fruit." Some accounts include women fainting! Instead, they watched in disbelief as Johnson finished his entire basket unharmed. The only casualty that day? The long-held belief that tomatoes were deadly.

While historians believe the above account is most probably a complete work of fiction, one thing is certain: Johnson did introduce the tomato to New Jersey's Salem County. He was an avid horticulturist and had books that included recipes using tomatoes, including for ketchup. Johnson's true legacy is that Salem County became the largest producer of tomatoes in the Americas.

I think the irony of the 'tomatoes are poison' narrative, beginning in Europe and imported along with this America's native plant, is that it probably wouldn't have happened if the tomato had just traveled up from Mexico instead of circling the world first.

By the mid-1800s, tomatoes were planted far and wide, and by the late 19th century, they were firmly rooted in western cuisine—no melodramatic band required – despite pockets of outliers, as witnessed by my grandma.

Debunking the Myths

One of the most pervasive myths is that tomato plants are poisonous, and that touching or smelling or even tasting tomato leaves can cause irritation or toxicity. While tomato leaves do have a distinctive smell due to their volatile oils, they are generally harmless when handled. As with anything new, if you have sensitive skin, take precautions as you may experience mild irritation after prolonged exposure.



That said, the concentrations of tomatine and solanine found in modern tomato plants are generally too low to be harmful unless distilled, concentrated or consumed in very large amounts. New York Times food science writer Harold McGee noted that dried tomato leaves—which contain higher alkaloid concentrations than the fruits—are sometimes used as a food flavoring or garnish, without causing adverse effects. According to McGee, an adult would likely need to eat over a pound of leaves (that's about the same as an entire head of iceberg lettuce chopped) to ingest a toxic amount (so no giant salads of only raw tomato leaves, please).

In some herbal traditions, tomatoes are valued for their aromatic leaves as well as their fruit. Tomato leaves have a robust, grassy aroma that can add umami depth to sauces and soups. Italian chefs sometimes simmer leaves in tomato sauce to enhance its flavor. Cook's Illustrated recommends using 1/4 cup of chopped leaves per 8 cups of tomato sauce during the last 10 minutes of cooking. Tie the leaves in a cheesecloth bag so that they can be easily removed. Taste testers reported the batch of tomato sauce with added leaves tastes less sweet but more complex, so give it a try and see if you've found your new secret ingredient!

How to Use Tomato Leaves:

- Start by adding 1–2 fresh leaves to sauces and soups for the last 10–15 minutes of cooking time, then remove before serving

(similar to bay leaf). If you enjoy a couple of sprigs, continue upping the amount to find your favorite concentration.

- Blend a small amount into tomato paste for an extra boost of flavor. (Note: start small and use sparingly to avoid overpowering the dish.)

Similarly, the fear of green tomatoes being "dangerous" is outdated. While large amounts of raw green tomatoes could potentially cause digestive upset due to solanine, (imagine eating 4-5 cups at a time!), most people would never eat them in such quantities. Proper cooking makes them both delicious and safe.

Green Tomato Quick Facts:

- **Small amounts are fine:** Eating green tomatoes in small quantities is generally safe for most people.
- **Solanine content:** Green tomatoes contain more solanine, which can cause stomach discomfort if eaten in excess, than their ripe counterparts.
- **Cooking is recommended:** Frying, baking, or roasting reduces bitterness and helps neutralize solanine levels, making them safer and tastier to eat.
- **Distinctive flavor:** Green tomatoes have a tart, tangy flavor, making them perfect for dishes like fried green tomatoes, chutneys, pickles or relishes.

As the famous saying goes, "The dose makes the poison" - a principle of toxicology attributed to Paracelsus, the 16th-century physician who observed that *anything* can be harmful in large enough quantities, even water or oxygen. The idea is simple: a substance is poisonous if consumed in a high enough dose. This concept explains why something like the alkaloids in tomato leaves or green tomatoes can cause harm in extreme amounts, but are harmless (and even flavorful!) in small doses. It's also the reason why some toxic substances, like medicinal herbs, can be healing in the right concentration.

The Tomato's Healing Potential

Tomatoes have long been valued for their health benefits. They are rich in lycopene, an antioxidant linked to heart health and reduced cancer risk. Tomatoes are considered a nutritious and healthy food choice. They are rich in essential vitamins, minerals, and antioxidants that provide numerous health benefits, including:

- **Antioxidant Power:** Tomatoes contain lycopene, a potent antioxidant that may protect against cancer, heart disease, and other chronic diseases.

- Vitamin C: Tomatoes are a good source of vitamin C, which supports immune function, collagen production, and wound healing.
- Potassium: Tomatoes provide a significant amount of potassium, which helps regulate blood pressure and heart health.
- Fiber: Tomatoes contain soluble and insoluble fiber, which promotes digestive health and helps regulate blood sugar levels.
- Other Nutrients: Tomatoes also provide essential nutrients such as vitamin A, folate, and magnesium.
- Some herbalists suggest that the tomato's leaves can be used in infusions to ward off garden pests naturally.

This article was written by Liz Lonetti with research assistance from her favorite AI bot, ChatGPT, who liberally sprinkled in digital bits of tomato trivia.

Sources:

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“LOVE APPLES” to be Continued

A Visit to the DBG Herbarium

On January 22, 2025, fifteen members of the Arizona Herb Association (AHA) went on a field trip, arranged by Teri Thorpe and Michele Spiller, to the herbarium at the Hazel Hare Center for Plant Science located at the Desert Botanical Garden (DBG) in Phoenix, Arizona. Housed in this 85,000 square foot center is a world class collection of desert plants, with an emphasis on agaves and cactuses.

Guided by Andrew Salywon, the herbarium curator and a research botanist at the DBG, AHA members learned that an herbarium is analogous to a library, but the information is stored in a botanical form, i.e., as pressed, dried, and annotated plant specimens. The Garden's collection consists of over 100,000 plant accessions from all over the world, many rare and endangered.

The multi-step preservation process begins with trips to a field site to collect plant specimens. The preservation process has become much more sophisticated since the 16th century, but many aspects remain similar. In past decades, several plants were flattened in a plant press, dried in an oven, and glued on a single sheet of paper; the pages were bound into volumes and stored in a fixed order. By 1751, the practice shifted to only one specimen per page, with the individual sheets stored in specially built cabinets. At the DBG, rows and rows of climate-controlled metal cabinets with sealed doors protect specimens from things like UV light, dust, insects and humidity.



Andrew Salywon, DBG Herbarium curator, explains the preservation process. Photo by Sandy Cielaszzyk

All files at DBG are color coded by geography. Only portions of the plant are preserved e.g., leaves, stems, flowers and/or fruit, and sometimes even roots. We learned that each specimen sheet has a label that identifies the plant's scientific name, the location where the plant was growing, the collector, the date collected and more. The appearance of the plant through measurements and context or habitat is listed, often along with a plant photo. Bar codes are also now being used.

At the DBG, the plants are digitized and data-based and then posted on The Arizona-New Mexico Chapter of Southwestern Environmental Information Network (SEINet) which originally distributed botanical data of interest to the environmental research community within Arizona and New Mexico. Over time this database expanded to include many collections across North America.



The Desert Botanical Garden Herbarium houses over 100,000 specimens in its collection. Photo by Barb Dysart

The value of the DBG herbarium cannot be calculated. Specimen sheets are loaned to other institutions. *Amaranthus palmeri*, once an important food source for Native Americans in the Southwest, has now become a noxious weed in agriculture which is resistant to roundup. Garden herbarium specimens are being used in a study to determine how herbicide-resistant genes evolve.

Comparative studies of plant samples can identify where plants grew, under what conditions, how development occurred over time, how species are related and much more. In a very real way, the DBG herbarium specimens can be considered a botanical "time capsule" to inform us of the history of the plant world and how earth changes through time.

Article by Kathleen McCoy and Sandy Cielaszyk

January Herb of the Month: Horseradish by Kathy Eastman

Kathy introduced us to horseradish thus: She had a grandmother who gardened, and grew, among other plants, both horseradish root and peonies. Kathy's father didn't garden, but his rules of life, along with "No drinking and driving," included "No killing unless there was a need." When the local Ace hardware store introduced a new product – fish emulsion fertilizer – her dad had an excuse to shoot carp in the nearby river. They would bury the carp in a deep hole to serve as fertilizer, until they met a Chinese family who ate carp!



into their Passover ceremonies, using it as a bitter. George Washington and Thomas Jefferson both grew horseradish, and it was grown commercially in Illinois.

In the 1860s, Americans had neither refrigerators nor freezers. They ate what was in season, and in the winter, they ate what they had preserved from their gardens. Henry J. Heinz helped his mother with her canning and loved her creamed horseradish sauce. The sauce was not easy to make as the horseradish root had to be dug up, cleaned, peeled, scraped and grated. It also had a very strong smell. Henry reasoned that, although many people liked to eat the sauce, few liked to prepare it, and started bottling his mother's creamed sauce to sell. While most people recognize the H. J. Heinz Company for its ketchup, its first product was actually horseradish. Today you can buy horseradish fresh at many grocery stores in late October or early November as horseradish roots are harvested before the ground freezes.

In most places, horseradish is planted in loose, well-draining soil in full sun. In the low desert, you need a shady spot to grow it, or you can use a grow bag and move it inside in the summer. Water deeply, providing about two inches of water per week. Fertilize four and eight weeks after transplant, with a mild, balanced fertilizer. Consider confining horseradish to containers or designated areas of the garden, as it can spread aggressively. While we have never dug up the horseradish in our demonstration garden, horseradish grows the most during autumn as the season cools. For this reason, delaying the harvest here until late autumn or early winter may result in larger roots.



Horseradish is low in calories and boasts several minerals and glucosinolate plant compounds, which may have a number of health benefits. Even in small amounts, horseradish provides several potential health benefits.

Horseradish may have anticancer effects:

- Glucosinolates and isothiocyanates in this root vegetable may protect against cancer by inhibiting the growth of cancer cells, as well as promoting their death.
- Some horseradish compounds, such as sinigrin, may also act as antioxidants and fight cell damage caused by free radicals.



Herb of the month, horseradish, left and peonies, right.

Horseradish root originated in eastern Europe and western Asia. By the Middle Ages, it was considered a cure-all. The leaves were used in poultices and the plant was taken internally. By the 1500s, Jewish families had incorporated horseradish

- Test-tube studies suggest that horseradish compounds may prevent the growth of colon, lung, and stomach cancer.
- Peroxidase, an enzyme found in this root, helps activate and boost a powerful anticancer compound that targets human pancreatic cancer cells.
- While these results sound promising, more research is needed.

Horseradish has antibacterial properties:

- Allyl isothiocyanate, the oil released when horseradish root is cut, may have powerful antibacterial properties.
- Studies suggest that it may fight a range of dangerous bacteria, including E. coli, H. pylori, and Salmonella.
- One test-tube study noted that isothiocyanates extracted from horseradish root killed six types of oral bacteria.
- Another test-tube study found that these isothiocyanates prevented the growth of four types of fungi that may lead to chronic nail infections.
- Isothiocyanates may bind to certain enzymes to prevent bacterial cell growth, though the exact mechanism is not well understood

Horseradish may improve respiratory health

- Consuming horseradish is known to cause a burning sensation in your sinuses, nose, and throat.
 - For that reason, it's often used to relieve colds and breathing issues.
 - One study in over 1,500 people found that a supplement containing 80 mg of dried horseradish root and 200 mg of nasturtium was as effective as a traditional antibiotic at treating acute sinus infections and bronchitis.
- These results suggest that horseradish may improve respiratory health, but more research is needed



In summary, horseradish contains glucosinolates and isothiocyanates, which may protect against cancer, fight bacterial and fungal infections, and improve breathing issues.

As for getting help from Google AI for her report, Kathy assured us that horseradish is not a horse, nor is it in the radish family. She reiterated that horseradish is very potent (people with stomach ulcers, digestive issues, or inflammatory bowel disease may especially wish to abstain), and she

suggested we all stay healthy so we don't have to take it as medicine!

NewYear/New Flavors Culinary Dinner

Saturday, January 25, found 25 herbies gathered to welcome the new year at Liz Lonetti's. Our theme was New Year/New Flavors and everyone got creative with delicious dishes!

Our hostess Liz provided Jamaica with Mint and Lemon. Starters included Drew and Todd Templeton's unique Lentil/Walnut Paté with Homemade Gluten-Free Crackers. Eric Adamczyk baked Focaccia with Lemon.

Judy and Larrie Bates brought crudités with Dill Horseradish Dip, while Lee Ann Aronson prepared a



Hostess Liz Lonetti and Culinary Chairperson Drew Templeton at New Year/New Flavors Culinary Event

colorful platter of Pickled Vegetables with Fennel Seed, Mexican Tarragon and Bay. Kathy Eastman created a Ragout of Tomatoes, Peppers and Cardoon which was served as an hors d'oeuvre with rounds of bread.

Beatriz Cohen made Arugula, Fennel and Orange Salad, and Chris Lueck made a gorgeous

Beet and Arugula Salad with Orange and Dill.

Entrées were quite diverse: Susan Adamczyk brought Pumpkin Mac and Cheese, Pam Posten made Lentil Sloppy Joe Sliders; and Janet Coleman and Zac Thayer brought amazing Aloo Chana Masala (Chickpea and Potato Curry) with Basmati Rice, Pickled Tomato Cucumber and Onion mix, and homemade Roti Flat Bread.

Nancy and Jerry Greenberg created Squash and Tofu with Tahini Sauce, Diane Knudsen made Spice Roasted Cauliflower, and Pam Perry and Henry Harding brought Romanesco/Brocoverde with Garlic and Pepper Flakes.

Tami and Tim Phillips made a Lemon Bundt Cake with sprouted spelt flour. Hazel and Les Davis learned a new technique to make Chocolate Babka

(sweet bread), and also brought our favorite Pecan Pie Bars.

Top favorites were the Chickpea and Potato Curry, Beet and Arugula Salad with Orange and Dill, and the Pecan Pie Bars. Join us next month when Susan and Eric Adamczyk will host on February 15 for Foods of Love and Friendship!

Drew, Culinary Chair

Chickpea and Potato Curry

For the spice mix:

- 1-1/2 tablespoons curry powder
- 1 teaspoon ground cumin
- 1 teaspoon ground coriander
- 1/2 teaspoon allspice
- 1/2 teaspoon nutmeg
- 1 teaspoon smoked paprika
- 1/2 teaspoon dried thyme leaves
- 1 teaspoon dried fenugreek leaves
- 1/2 teaspoon cayenne pepper



For the curry:

- 2 tablespoons vegetable oil
- 1 cup onion, diced
- 3 garlic cloves, minced
- 1 1/2 cups potatoes, cut into 1-inch cubes
- 1/2 pound dried chickpeas
- 1- 14 ounce can crushed tomatoes
- 4 cups chicken or vegetable broth
- 3 green onions, sliced
- 2 tablespoons freshly chopped parsley

Soak dried chickpeas overnight in 4 cups water. Cook chickpeas for 1-1/2 hours in 4 cups vegetable stock. Drain and reserve 2 cups of the stock. Heat a large pot over medium heat, add 2 tablespoons of vegetable oil, and sauté the onions and garlic until fragrant, about 2 minutes.

Add the spice mix and cook for one more minute. Mix in the potatoes until fully covered with spice mix.

Pour in the chickpea/vegetable broth, crushed tomatoes, and chickpeas. Bring to a boil, reduce the heat, and simmer for 20 minutes or until the potatoes are cooked through.

Stir in the freshly chopped green onions and parsley. Adjust the seasoning with salt and pepper. Serve over steaming Basmati and with natural yogurt on the side to bring down the heat.

Prepared by Janet Coleman for January culinary

Beet and Arugula Salad with Orange and Dill

- 2 pounds beets, scrubbed, trimmed, and cut into 3/4-inch pieces
- 1/2 cup water
- 1 teaspoon caraway seeds
- 1/2 teaspoon table salt
- 1 cup Greek yogurt, plain
- 1 garlic clove, minced to paste
- 5 ounces arugula or watercress, in bite-sized pieces
- 1 tablespoon extra virgin olive oil, divided, plus extra for drizzling
- 1 tablespoon white wine vinegar, divided
- 1 teaspoon grated orange zest
- 2 tablespoons orange juice
- 1/4 cup hazelnuts, toasted, skinned and chopped
- 1/4 cup fresh dill, coarsely chopped
- Coarse sea salt

Combine beets, water, caraway seeds, and table salt in electric pressure cooker. Lock lid in place and close pressure release valve. Select high pressure cook function and cook for eight minutes.



Turn off pressure cooker and quick release pressure. Carefully remove lid, allowing steam to escape away from you.

Using slotted spoon, transfer beets to plate and set aside to cool slightly. Reserve 3 tablespoons of the beet cooking liquid. Discard the remaining cooking liquid.

Combine yogurt, garlic, and the 3 saved tablespoons beet cooking liquid in a bowl.

In large bowl, toss arugula with 2 teaspoons oil and 1 teaspoon vinegar, season with salt and pepper to taste.

Spread yogurt mixture over surface of serving platter. Arrange arugula on top of yogurt mixture, leaving 1-inch border of yogurt mixture.

Add beets to now empty large bowl; toss with orange zest, orange juice, remaining 2 teaspoons vinegar and remaining 1 teaspoon oil. Season with salt and pepper to taste.

Arrange beets on top of arugula mixture. Drizzle with extra oil and sprinkle with hazelnuts, dill and sea salt. Serves 4.

Recipe from America's Test Kitchen's [The Complete Plant Based Cookbook](#) and prepared by Chris Lueck

Pecan Pie Bars



Makes 30-42 bars, depending on how small you cut them.

Photos by Drew Templeton

Crust:

2 cups all-purpose flour
1/2 cup granulated sugar
1/8 teaspoon salt
3/4 cup butter or vegan butter, cut up

Filling:

1 cup firmly-packed brown sugar
1 cup light corn syrup
1/2 cup butter or vegan butter
4 large eggs, lightly beaten
2-1/2 cups pecans (I prefer pecan halves, but you can chop if preferred)
1 teaspoon vanilla extract

Crust:

Preheat oven to 350°F. Grease a 9x13-inch baking pan. Using a pastry blender or food processor, combine the flour, butter, granulated sugar, and salt until the mixture resembles fine crumbs. Press firmly and evenly into the bottom of the prepared pan. Bake the crust for 15 minutes, until lightly browned.

Filling:

Reduce the oven temperature to 325°F. Combine the brown sugar, corn syrup, and 1/2 cup butter in a saucepan. Bring to boil over medium heat, stirring gently. Cool slightly.

Stir 1/4 of the warm mixture into the beaten eggs, then add the rest of the mixture. Stir in the pecan halves and vanilla. Pour filling over the crust.

Bake at 325°F for 30 minutes until set. Watch carefully because the edges can burn if baked for too long. Allow to cool completely before cutting into bars or squares.

These freeze very well. I have used Earth Balance Buttery Sticks and/or Miyoko's Vegan Butter in place of the butter to makes these non-dairy.

Prepared by Hazel Davis, for January culinary event, January 25, 2025



The Arizona Herb Association will have a table at this event. Parking during the event hours will be in the adjacent City of Phoenix Light Rail Park-n-Ride lot. The event will proceed rain or shine. Learn from local gardeners and shop super local. Buy from your community and support your friends. There will be free demonstrations and classes throughout the event. Follow @phoenixseedswap on Instagram for more info!

Katherine Tarr, VP in charge of Ways & Means

Blue Sky Organic Farm

by Shay Emmers

AHA Vice President Shay Emmers presented our January program, speaking about Blue Sky Organic Farm. David Vose and Sara Dolan are co-owners of this farm of 19 acres in Litchfield Park. Eight of those acres are farmable (meaning land to grow food), with buildings, roads, storage and pasture on the remaining 11 acres. The farm is surrounded by industrial development, all built on what was once farmland. Prior to 2021, David and Sara had been farming 23 acres in



Goodyear, leased from a neighboring dairy. After a death in the family, that land was sold to Fulton Homes who planned to pave over the property and build a housing development.



David Vose
Farmer / Co-Owner
Blue Sky Organic Farm

Farmer David has been growing food organically for decades (farming in Arizona since 1995), and has a wealth of experience in desert farming. He grows three kinds of cauliflower, broccoli, Brussel sprouts, sweet onions, strawberries, melons, squash, cabbage, spinach, lettuces, fennel, cilantro, arugula, dill...in short, whatever they can fit in!



His partner Sara runs a farmstand on the property that is loaded with their produce and products from other small businesses, including cottage industry baked goods, eggs, jam, honey, nuts and seasonal and handcrafted items. In addition, she attends the Downtown Phoenix, Uptown Phoenix, Roadrunner Park, Old Town Scottsdale, and Gilbert Farmers Markets every week, operates a Community Supported Agriculture (CSA) program with 600 families participating, and supplies produce to restaurants and kitchens. Blue Sky donates produce to local food banks and supplements CSAs and farmer's markets across the state including Superior, Lake Havasu City and Flagstaff.

Shay shared parts of a new video done by Local Arizona and recently aired on PBS, which explained some of the problems faced by local farmers and ranchers. We learned that half of Arizona farms are less than 10 acres, and, unlike in many other states, not much of Arizona's land is guaranteed to stay agricultural. In fact, farmland in Maricopa County is being lost at a higher rate than anywhere else in the United States, and Arizona is losing farmland the fastest. According to American Farmland Trust "444,500 acres of Arizona farmland and rangeland will be paved over, fragmented or converted to uses that jeopardize agriculture by 2040. This represents an area more than the size of Phoenix."

The video Shay shared about Arizona's farmers and local food providers featured not only Blue Sky Organic Farm, but also Spaces of Opportunity, Prescott Farmers Market, Southwest Mushrooms, Kerr Family Dairy Farm, Duncan Family Farm, the San Carlos Apache community, the Food Forest Co-operative and others. The documentary is about 55 minutes and worth watching!



The Story of Arizona's Good Food documentary

- Search YouTube by typing in this title: "The Story of Arizona's Good Food."
- Copy/paste this YouTube video: <https://www.youtube.com/watch?v=fGyqls-SdI0>
- Copy/paste this website link the <https://www.pbs.org/show/the-story-of-arizonas-good-food/>

You can support Arizona growers and ranchers by shopping locally, choosing "local" tagged foods at your grocery store, and dining at restaurants that source food from local producers and change their menus seasonally.

Thanks, Shay, for sharing this important story with the Arizona Herb Association, especially your call to action challenging each of us to do what we can to support our local farms!



REGISTRATION IS NOW OPEN!



DON'T MISS OUT!

**“Wild and Water Wise”
AFGC State Convention
April 27, 2025**

And

**Pacific Region Garden Clubs
2025 Convention (PR25)
April 28 – April 30, 2025
Early Registration Closes March 1;
Online Registration Closes April 20**

As Herbies, we're also members of the Arizona Federation of Garden Clubs (AFGC), Pacific Region Garden Clubs (PRGC), and National Garden Clubs (NGC). One of the really cool things about this multi-tiered membership is that each of these entities host events where we can meet other garden-minded people, attend educational sessions and hands-on workshops, view beautiful floral displays, and even learn about (or get involved!) with garden club leadership.

During the last week of April, AFGC is hosting the 81st Pacific Region Convention (PR25) along with its own state convention and 91st Annual Meeting at Wyndham Phoenix Airport/Tempe. And we are all invited to attend!

The conventions share one theme - **Wild and Water Wise** - and will feature keynote speakers from Arizona's Water Conservation District, the National Forest Service, and Boyce Thompson Arboretum. There will be hands-on workshops, tours of local gardens (including our own Demo Garden!), and delicious meals where we can meet other garden club and plant society members from Pacific Region's eight states.

Educational sessions on a variety of topics, such as “Wild West” Native Tea Plants (by AHA's own Lee



Ann Aronson), Low-water Gardening (by Past Herbie President Liz Lonetti), birding, date palm pollination, and plant grafting sessions will also be held.



There will also be a floral design demonstration by renowned designer, Brent Leech of Arizona Flower Market, and a membership workshop presented by NGC Membership chair Robin Pokorski.

For those interested in learning about floral design, outstanding floral arrangements created by members from around the state will be exhibited in the “Arts in Bloom” flower show, and a hands-on floral design class will provide an opportunity to try your hand at making an arrangement. If you're lucky, you might win one of the terrific gift baskets made by our state garden clubs that will be raffled off. You can also purchase raffle tickets for special one-of-a-kind items and bid on high-end items in the silent auction.



Empower
Leadership training and ideas to bring back to your club!

Design
Hands-on floral design opportunities

Garden
Garden tours, workshops and speakers on various topics

Enlighten and Educate
Keynotes and educational sessions from experts in their fields

You'll be amazed at all that is happening during the 2025 conventions. The schedule of events for both conventions is found at <https://azgardenclubs.com/conventions/>.

Several pre- and post-convention activities have been planned, including tours of ASU's Date Palm farm, Boyce Thompson Arboretum, Taliesin West, and Desert Botanical Garden. Sedona Area Garden Club is also hosting a one-day excursion to Sedona with a tour of a historic property next to Oak Creek and various afternoon activities.

Online registration is open at azgardenclubs.com/conventions/. Early bird pricing lasts until March 1 and online registration closes on April 20. Mail-in registration is available, but must be postmarked no later than April 10.

Any questions, please email azgardenconvention@gmail.com. The AFGC / PRGC 2025 conventions offer something for all garden club and plant society members. Bring a friend, spouse or family member for even more fun, and be sure to sign up today!

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In the end, our society will be defined not only by what we create, but by what we refuse to destroy.

John C. Sawhill

President, The Nature Conservancy (1990-2000)