



JOSEPH BERRY

A selection of seeds from Monticello's gardens packaged and ready to be shipped to customers of the Center for Historic Plants. Order your seeds from the list beginning on page 27.

Seeds at Monticello: Saving, Storing, Sharing

"I enclose you a few seeds, a part of what the original plant gave us; the next year I hope to have a plenty."

JEFFERSON TO BERNARD MCMAHON
JANUARY 21, 1812

FOR THOSE WHO GARDEN, there is nothing more essential and elemental than seeds and, certainly for the eighteenth-century gardener, seed saving was a matter of course and a necessity. References to seeds are so pervasive in Thomas Jefferson's memoranda, diary entries, letters, and other writings, it would be nearly impossible to organize and index every instance. While a great deal is known about Jefferson's various sources for seeds and the breadth of his horticultural interests and desires, there are many common-sense, mechanical aspects of the ways in which seeds were handled at Monticello that were rarely recorded. How were seeds obtained, collected, cleaned, stored, and preserved by Jefferson, his family, his overseers, and gardeners?

"Forward it by mail in a letter"

As Jefferson's correspondence clearly shows, seeds—portable, dry, relatively small—were often sent enclosed within

the same envelope as the letter. Jefferson placed seed orders directly with a host of suppliers and dealers who, in many cases, also were his friends, and two-way seed-swapping was common among friends. Jefferson's letter of March 12, 1821, to General John Hartwell Cocke of Bremono Plantation gives a perfect example of this interaction between neighbors: "Our last mail brought me a letter from Mr. Rodney and the inclosed seeds of pumpkin and asparagus for you...if

you had any Sea-Kale seed to spare I will thank you for some to replenish my bed." Jefferson, while President, mailed kitchen garden and flower seeds to his family at Monticello and, after he retired in 1809, he often relayed seeds from Monticello to Poplar Forest, his retreat home in Bedford County Virginia. Seeds ordered from commercial sources were sent via "mail stage" in simple envelopes.



Leslie Stone sorting and packaging seeds at the Center for Historic Plants.

ELIZABETH CAREY

While no letters with seed envelopes are known to have survived at Monticello, dozens of folded paper seed packets dating to the early nineteenth century were found several years ago in the attic of William Hamilton's estate, the Woodlands. This remarkable discovery was made by National Park Service historical architect Timothy P. Long during his analysis of Hamilton's mansion outside Philadelphia. Many of these 200-year-old packets, which are now preserved at the Academy of Natural Sciences in Philadelphia, still contain seeds and are labeled with full Latin name and source.

Letter packets and packages used for small quantities of seed were understandably vulnerable to all sorts of unforeseeable circumstances, delays, and happenstance in transit, especially those coming from great distances. Such packages were also likely to pass

through many hands before arriving at a final destination. One instance of this convoluted journey occurred when Jefferson's old acquaintance André Thouin, superintendent of the National Botanic Garden in Paris, shipped to America what was described as "a small packet of garden seed" sometime during the fall or over the winter of 1811-12. It eventually arrived in Norfolk, Virginia March 3, 1812 and, from there, Col. Larkin Smith forwarded the packet to Jefferson "by a very safe conveyance to Richmond," noting that he had "committed it to the care of Mr. James Barbour, with a request that he would transmit it to you without loss of time, as the season for sowing the seeds has commenced...." A week later, on March 10, James Barbour sent an update to Jefferson:

"The accompanying collection of garden seeds was forwarded to me by Col. Larkin Smith of Norfolk. He suggested to me the necessity of sending them as soon as possible as the time for sowing them had, probably, arrived. Supposing

the Stage both the safest and most expeditious conveyance I avail myself of that opportunity. I hope you will receive them in the time.... N.B. Just as

I had finished this note a wagon from Milton passed and I have confined the Seeds to him. R. Johnston."

Although it is unclear when this package of seeds arrived at Monticello after changing hands with at least four different parties, it appears that seven months later Jefferson, in turn, passed them on to Bernard McMahon, noting that they "came too late for use this

year; and no opportunity has occurred of a passenger going in the stage to Philadelphia to whom I could confide them. But a medical student will be going from this neighborhood at the commencement of the next lectures by whom I will forward them to you: and as they are seeds of 1811. I presume they will generally succeed the next season...."

"Gather all kinds of seeds as they ripen"

Philadelphia nurseryman and author Bernard McMahon was only one of Jefferson's many suppliers, but a significant one. McMahon's book, *The American Gardener's Calendar*, first published in 1806, was Jefferson's primary reference as he planned and planted his gardens at Monticello in his retirement years. In the prelude to the quite lengthy and comprehensive "General Catalogue" at the end of his book, McMahon makes the claim that while nearly all of the plants listed could be raised from seed, "if obtained fresh from their respective native countries, or from where they arrive at due maturity; at present, an immense number of them are in



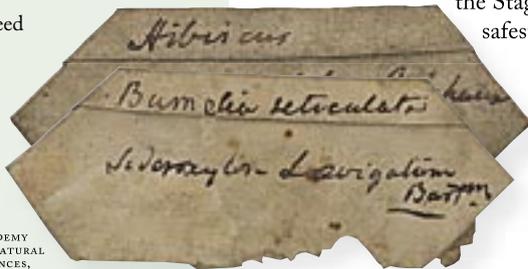
The American Gardener's Calendar

possession of, and for sale by the Author of this work."

While McMahon, a seed merchant, was naturally inclined to promote himself as the source for every plant described, his *Calendar* does offer many seed-saving methods for the home gardener. Fall being the season when most seed-saving activity occurs, McMahon, in his notes for September, gives the general instruction to: "gather all kinds of seeds as they ripen, which may be necessary in the ensuing season, and spread them to dry on mats or cloth; when sufficiently hardened beat them out, clean, and put them up carefully till wanted for sowing." Jefferson documented at least one occasion when this fundamental, end-of-the-season process was unsatisfactorily carried out at Monticello. In a letter to Randolph Jefferson, dated March 12, 1813, he wrote: "Having been from home the last fall during most of the season for saving seeds, I find on examination that my gardener has made a very scanty provision." Jefferson then forwarded small quantities of various vegetables — peas,

Seed Packets Survive Two Centuries

Two of dozens of seed packets surviving from the early nineteenth century discovered at The Woodlands, William Hamilton's mansion near Philadelphia. Because the



ACADEMY OF NATURAL SCIENCES, PHILADELPHIA

Academy was one of the first scientific institutions in the New World, the herbarium holds some of the oldest and most important plant collections in the Americas, including The Woodlands Seed Collection. The herbarium has about 1.5 million dried specimens, several of them collected by Benjamin Smith Barton and G.H.E. Muhlenberg, early members of the American Philosophical Society.



Spinach going to seed in the Monticello garden.

beans, limas, carrots, parsnips, salsify, spinach, and sprout kale—and even a collection of flower seeds put together by his granddaughter Anne Cary Randolph. But, he did not supply seed of tomatoes, cucumbers, lettuce, radish, squashes, cabbages, and turnips, saying his own stock was short and “because all your neighbors can furnish them.”

The month-by-month advice in McMahon’s *Calendar* addresses specific plants in greater detail, including, for example, long treatises on planting onions in October and lettuces in February for seed production. He commonly recommends “planting a special patch of garden” for this purpose and he stresses that these crops should be planted “on the south border, which ought to be well defended by a wall, hedge, or board fence.” The border beds along the slope of the south-facing Monticello Kitchen Garden terrace provided just such an ideal environment for the “seed bed” where crops could be left alone and undisturbed to flower and go to seed. Designated seed beds were essential also for nurturing rare acquisitions and increasing their number over time.

Monticello Kale Seed

Grow kale in your home garden. ‘Early Curled Siberian’ kale seed is available from the Center for Historic Plants.

ITEM #631081
\$2.35 PACKET



Winter kale

VILMORIN-ANDRIEU, THE VEGETABLE GARDEN, 1885

Jefferson’s excitement over the single plant of Sprout Kale that germinated from a packet sent by André Thouin was evident when, in the following winter, he was able to turn out for seed 20 or 30 plants. On January 12, 1812, he wrote to Bernard McMahon: “I consider [Sprout Kale] among the most valuable garden plants. It stands our winter unprotected, furnishes a vast crop of sprouts from the beginning of December through the whole winter, which are remarkably sweet and delicious.” And one can sense his immense pleasure in sharing this new and worthy crop as he continued: “I enclose you a few seeds, a part of what the original plant gave us; the next year I hope to have a plenty. I send it because I do not perceive by your catalogue that you have it.”

The *Calendar* gives quite in-depth instructions for saving seeds from pleasure garden flowers and indicates a basic understanding of the principals of cross-pollination. Most notable are the directions for selecting and preserving fine specimens of fully-double flowers such as anemones and ranunculus by procuring seed from *semi-double* blossoms with “well-formed petals, of rich, good, and brilliant colors.” For superior auriculas, polyanthus, and cyclamen seed, McMahon advocates selecting “young, healthy, strong plants, of capital high-coloured sorts, possessing first rate properties” and detaching them from the rest “to some distant part of the garden, for fear of the farina of indifferent sorts” contaminating the superior ones. Monitoring the progress of seed ripening is further stressed, especially for wind dispersed species. Ideally, the *Calendar* states, seeds should be gathered as they appear dry, brown, and begin to open; thus allowing them to fully ripen on the plant.



H. BOURNE, THE FLORET'S MANUAL, 1833

Jefferson’s granddaughter, Anne Cary Randolph, complained of her failure at saving seed from *Mignonette* but noted that she had been successful with *cypress vine* (below).

But, in reality, this is often a problematic effort. Anne Cary Randolph pointed out just such a dilemma in a letter written to her grandfather January 22, 1808, where she noted that she had successfully saved seed of the cypress vine and prickly ash trees. But then added: “We were so unfortunate as to lose the *Mignonett[e]* entirely although Mama divided it between Mrs. Lewis, Aunt Jane & herself but none of it seeded Mrs Lewis supposes that the climate is too cold for it for she has had it repeatedly before & it never would seed...” Early frosts remain a perennial problem for seed saving at Monticello even today, and there have been years when seed crops that were not fully



Cypress vine

CURTIS' BOTANICAL MAGAZINE

ripened before a killing freeze have been severely reduced or completely lost for that season.

“Keep the seed room as dry as possible”

In *A Dictionary of Modern Gardening*, 1847, George William Johnson repeats the mantra found in most eighteenth- and nineteenth-century gardening dictionaries regarding proper seed storing: “...everything promotive of decay or germination is to be avoided; and if one relative direction more than another requires to be urged upon the gardener, it is comprised in these words—*keep it as dry as possible*: the room may be even hot, so that it is not damp.” The British gardening journal, *Gardener’s Chronicle*, published by Joseph Paxton, stresses that the seed room must be dry and hot, “very nearly resembling a slow corn-kiln” and that it should contain:

“a nest of very shallow drawers or trays, divided into compartments, each holding a tin box three inches in diameter, and on the lid of each a label, inscribed with the name of the seed. Such an arrangement not only saves the seed, but saves the gardener’s time, especially if the seeds are arranged alphabetically in the drawers.”

Jefferson kept his seed collections dry and safe in a seed press, which was crafted in Monticello’s joinery around 1809. This press was located in his Cabinet, or private apartment of rooms—his bed chamber, library, and greenhouse—on the south side of the first floor. In her book, *The First Forty Years of Washington Society*, Margaret Bayard Smith, a close friend of Jefferson’s while he served as President, gave the best description of his seed press, which she saw during her

August 1809 visit to Monticello.

“His cabinet and chamber contained every convenience and comfort, but were plain....He opened a little closet which contains all his garden seeds. They are all in little phials, labeled and hung on little hooks. Seeds such as peas, beans, etc. were in tin canisters, but everything labeled and in the neatest order.”

Monticello now has on display in the library a handsome piece of walnut and mahogany furniture, standing over 5 feet tall, which is thought to be Jefferson's original seed press. The closet has two paneled doors, each with two recessed panels. The back of the press shows the holes believed to be made by the hooks on which the vials were hung.



Jefferson's seed press, or seed storage cabinet, was crafted by slaves in the joinery at Monticello.

PH. / NEMO BEWANG

These “little phials” Mrs. Smith refers to were likely small glass apothecary vials, which were commonly available at that time. In May 1809 Jefferson asked his grandson, Thomas Jefferson Randolph, who was then studying in Philadelphia, to obtain “a gross of vial-corks of different sizes, and 4 dozen phials of 1. 2. 3. and 4. ounces, one dozen of each size. The largest mouth would be the best as they are for holding garden seeds.” According to Joel Fry, curator of Bartram's Garden in Philadelphia, small blown glass vials in several sizes were imported from England in vast quantities during the eighteenth century and they were also produced in New Jersey glassworks by the middle 1700s. Moreover, by the early 1800s there were a number of Philadelphia manufacturers as well. The same sources also produced assorted sealable tin canisters that could be used for larger seeds such as beans and peas. Over the years, Monticello's archaeologists have discovered fragments of many such vials in various sizes and colors, primarily along Mulberry Row, the industrial Main Street above the Kitchen Garden.

In addition to the walnut and mahogany seed press in the house, Mrs. Smith further wrote about a portable seed press she saw Jefferson using in the vegetable garden. She described it as: “a frame, or stand, consisting of two upright



MONTICELLO ARCHAEOLOGY / TIF

Vial found at Monticello by archaeologists. Could it have been used by Jefferson to store seeds?

pieces of about two inches thickness, in which were neat little truss hooks. On these were suspended phials of all sizes, tightly corked, and neatly labeled, containing garden seeds, of the smaller kind; those of the larger were in tin canisters. When in his garden this stand could be carried about and placed near him, and if I remember, there must have near a hundred kinds. It is well worthy the adoption of all gentlemen and lady gardeners.”

We can only imagine what this portable press might actually look like, as no such apparatus is known to have survived from Jefferson's day. Joel Fry suggests it might have been based on portable stands used for sewing materials or portable cases the apothecary used for holding medicines. Such cases were available almost anywhere. But Mrs. Smith's detailed description suggests that it was something quite unique and specifically designed and made to order for Jefferson's purposes.



Today, seed saving at Monticello continues, but with a greater, more far-reaching goal. Beyond the need to preserve heirloom varieties for immediate use in Monticello's restored gardens, our aim is to safeguard this living collection for future generations. One way to ensure the success of our mission is to share these seeds with other historic gardens and institutions and to make them available

to the general public. Seed preservation thus becomes a part of the overall interpretation of the gardens. Visitors to Monticello are often surprised to learn that seeds are collected on site in much the same way they were two-hundred years ago. Seed collecting, cleaning, and packaging is done by hand and is an important and labor-intensive winter



G.B. MCINTOSH

Artist G.B. McIntosh imagines Jefferson planting seeds in the vegetable garden with one of his granddaughters.

occupation for the horticultural staff at Monticello and at the Center for Historic Plants. The physical trappings may have changed. The walnut and mahogany seed press filled with eighteenth-century glass with cork apothecary vials and tin canisters has been replaced with metal cabinets and refrigerators; modern screw-top jars, plastic containers, and sealed bins on shelves in an air-conditioned room. But the centuries old process continues, tactile and organic; the very essence of the gardener's work.

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