



COLORADO NATIVE PLANT SOCIETY

"DEDICATED TO THE APPRECIATION AND CONSERVATION
OF THE COLORADO NATIVE FLORA"

NEWSLETTER

Volume I Number 6
November-December
1977

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MAILING ADDRESS

Colorado Native Plant Society
c/o Anne Bliss
Box 2094
Boulder, Co. 80306

OFFICERS

President: Hugo Ferchau
Vice President: William Harmon
Secretary: Panayoti Peter Callas
Treasurer: Kimery C. Vories

BOARD OF DIRECTORS

David Buckner	William Harmon
Panayoti Peter Callas	Karen Hollweg
Gail Evans	J. Scott Peterson
Hugo Ferchau	James E. Ratzloff
William Gambill, Jr.	William Weber
Libby Goodwin	Dieter Wilken
	Kimery C. Vories

SOCIETY COMMITTEES

Endangered Species	William Harmon
	Janet Hohn
Education	Bill Harmon
Environmental Documents	Hugo Ferchau
Field Trips	
Funding	Kimery Vories
Horticulture & Rehabilitation	Karen Hollweg
Legislative	Lois Webster
Membership	Sue Martin
Publications	J. Scott Peterson
Publicity	Steven Bissell

EDITOR, NEWSLETTER

Anne Bliss

SCHEDULE OF MEMBERSHIP DUES

Life	\$250.00
Supporting	50.00
Society	25.00
Family	12.00
Individual	8.00
Student & Retired	4.00

\$ MEMBERSHIP DUES \$

Renewal memberships are now necessary for all members who joined the society before July 1, 1977. To join or renew your membership, please fill out the following form and mail with your remittance to:

Sue Martin (Membership Chairman)
Colorado Native Plant Society
4700 Venturi Lane
Fort Collins, Colorado 80521

Please indicate if you are or desire to be a member of either the Boulder or Fort Collins chapter.

Membership in the Society is open to all individuals concerned with conservation of the native flora. Activities include efforts to bring public attention to the varied and unique habitats of the Colorado landscape and the need to conserve all elements of the native Colorado flora. Additional benefits of membership include informative publications and organized field trips in addition to meetings. Local chapters presently exist in Boulder and Fort Collins and conduct activities on a regional basis. The Society can achieve its primary goal only through active participation of all who are interested in an appreciation of native plants.

MEMBERSHIP APPLICATION

Name: _____
Street: _____
City: _____ State: _____ ZIP _____
Membership: _____ Chapter Affiliation _____
(Optional)

SECOND ANNUAL MEETING

The second annual meeting of the Colorado Native Plant Society was held Saturday, October 15, in the Horticulture Hall at the Denver Botanic Gardens. Vice President Hugo Ferchau presided in the absence of President William Weber. Committee reports were given, and a "State of the Society" address presented. The program following the business meeting included slide presentations and lectures on the "Horticultural Use of Native Plant Species."

STATE OF THE SOCIETY ADDRESS

Since President William Weber was on a botanical excursion to the State of Chihuahua, Mexico, the "State of the Society" address was given by Vice President Hugo Ferchau.

Dr. Ferchau pointed out that the Society has completed its first year as an organized group with a membership of 215 members and a solvent treasury. One of the outstanding accomplishments of the first year has been the Newsletter which has developed into an excellent means of communicating information to the membership. Dr. Ferchau congratulated those who have been involved in this endeavor.

The Horticultural and Rehabilitation Committee was also praised by Dr. Ferchau for their accomplishments this past year, but he pointed out that other Society committees were slow to respond to the problems at hand. Although we have established a Society, we must develop the leadership to resolve the problems which brought us together in the first place. The membership is a group with very diverse interests in plants and these various interests should be identified and pursued. Dr. Ferchau stated that the Society is in a position to provide enlightenment and direction in the area of threatened and endangered species and should do so. The Society should give constructive critiques to the numerous environmental documents which relate to environmental quality. The Society needs to develop a consensus of how native species should be utilized in gardening and rehabilitation.

In summary, Dr. Ferchau concluded that while the Society has completed its first year on an even keel, there are some decisions which must be made concerning our future direction.

MINUTES OF OCTOBER 15 MEETING

A meeting of the Board of Directors was convened at approximately 4:00 PM. The following members were present:

David Buckner, Gail Evans, Hugo Ferchau, William Gambill, Libby Goodwin, William Harmon, Karen Hollweg, Scott Peterson, Jim Ratzloff, Kim Vories, and Dieter Wilken.

*For purposes of record:

David Buckner and Gail Evans are members of the Board by virtue of their respective offices as Presidents of Local Chapters.

Hugo Ferchau, William Gambill, Scott Peterson, William Weber and Dieter Wilken retire in 1978.

Libby Goodwin, William Harmon, Karen Hollweg, Jim Ratzloff and Kim Vories are newly elected (October, 1977) and retire in 1979.

1. Officers elected by the BOD for the year 1977-78 are:

President: Hugo Ferchau
Vice-President: William Harmon
Secretary: Panayoti P. Callas
Treasurer: Kim Vories

2. The BOD discussed the request of Scott Peterson to be relieved of duties as Newsletter Editor.

Anne Bliss was appointed as Editor and Scott as advisor to the Editor as part of his responsibility in the Publications Committee.

3. The BOD affirmed and approved the policy statement of the Horticulture and Rehabilitation Committee, which is attached as an appendix to these minutes.
4. The BOD determined the date, time, and place of the next meeting:

November 7, 1977, 7:00 PM, Room A, Denver Botanic Gardens, 1005 York Blvd., Denver, Colorado.

Respectfully submitted,
Dieter H. Wilken
Secretary

Her publications include the following:

Nelson, Ruth A. 1977. Plants of Zion National Park: Wildflowers, Trees, Shrubs & Ferns. Zion. \$6.50.

_____. 1970. Plants of Rocky Mountain National Park. Rocky Mountain Nature Association. \$3.50.

_____. 1969. Handbook of Rocky Mountain Plants. Dale Stuart King, Arizona. \$4.95.

Roberts, Rhoda N. and Ruth A. Nelson. 1974. Mountain Wildflowers of Colorado. Denver Museum of Natural History. \$1.60.



THE CONPS PRESENTS ITS THIRD LIFETIME MEMBERSHIP AWARD TO RUTH ASHTON NELSON

It was with little difficulty that the ConPS board of directors decided to honor Ruth Nelson with a lifetime membership award at the 2nd annual meeting at the Denver Botanic Gardens. Mrs. Nelson has been actively associated with work on the flora of Colorado since the early 1930's. She is indeed one of the pioneer botanists of the Rocky Mountain region. She maintains a residence now in Estes Park where her father homesteaded and ranched in the early days of Colorado.

Her extensive work on the flora of the Rocky Mountains has led to the publication of several very popular and widely used floras. In each of these publications she has endeavored to give the reader not only a name for each plant but to encourage an appreciation for the ecology, aesthetics, usefulness, history, and evolutionary relationships which make each plant come alive with an identity all its own.

We are very proud to have such a gem in our midst and take great pleasure in recognizing her efforts.

ENDANGERED PLANT SPECIALIST IN COLORADO

The Denver Regional Office of Endangered Species (USDI Fish & Wildlife Service) has recently hired Dr. Janet E. Hohn as an Endangered Species Staff Specialist (Plants). Dr. Hohn received her M. S. from the University of North Carolina and took her Ph.D. at the University of Washington. Her principal work has been with threatened or endangered species of *Lewisia*. Prior to arriving in Denver, she was employed by the Washington State Game Department, participating in a "Vegetation Survey of the Coastal Zone".

The Denver Regional Office of Endangered Species has jurisdiction over a ten state area, from Nevada to Iowa. Dr. Hohn's primary responsibility is to initiate and conduct a threatened and endangered plant program. This involves functioning as a botanical consultant when an activity occurs on a Federally funded project that may affect threatened and endangered species, and listing all threatened or endangered plant species within this region.

The Society wishes to extend its welcome to Dr. Hohn and thank her for presenting a summary of her office's functions at the Annual Meeting.

SLIDE DONATIONS SOUGHT

The Educational Committee is attempting to assemble a collection of slides of native plant species which can be utilized for lectures and other educational purposes by the society members. If you have interesting, beautiful slides which you would be willing to duplicate and donate to the Colorado Native Plant Society slide file, please send them to:

William Harmon
2040 5th Avenue
Greeley, Colorado 80631

Information accompanying each slide should include species name, location, photographer, and date. Any further information regarding habitat, associated species, etc. is always helpful.

IN MEMORIAM

It is with sadness that the Society notes the October death of Bruno Klinger of Fort Collins. Retired from his teaching position with the Department of Botany and Plant Pathology at Colorado State University, Professor Klinger devoted much of his energy toward education of laypersons in the field of botany. He was an excellent teacher, an expert on poisonous plants, and a good friend. His love and appreciation for plants was matched only by that of sharing his wealth of knowledge with others.

FORT COLLINS CHAPTER

The Fort Collins Chapter held its sixth meeting November 1, 1977. Dr. Fechner, professor of Forestry and Wood Sciences at CSU, gave a talk and slide show on "The Trees of Colorado." Election of chapter officers was held and the following persons were elected:

President: Gail Evans
Secretary: Mary Ann Varanka
Program Chairperson: Deb Sevene

NATIVE PLANT SEED COLLECTIONS

A bulletin on collecting, threshing, cleaning, and germinating seeds of wildland species by J. A. Young and others will soon be available. If you are interested in obtaining this publication please write the USDA Agricultural Research Service, 920 Valley Road, Reno, NV 89512.

GROWING NATIVES--SOME PROBLEMS

by Panayoti P. Callas

People do love Colorado's natives, and will try to grow them with little encouragement, but the ignorance on the part of the population is nowhere more blatant than when it comes to growing native plants. When some suburbanite acquaintances of mine discovered recently that I was trying to grow some natives, they began to excitedly describe one of their recent experiments. They went up to Trail Ridge (you know, where all those interesting, pretty little plants grow), hacked up some sods of alpine turf and put them out in their hot little garden. They couldn't quite understand why the sods promptly turned brown. When I asked them in a tremulous voice if they knew that you aren't supposed to collect anything in National Parks, they casually tossed off that "a few lil' plants dint matter".

There is a manifest need for some public education about growing native plants. The Colorado Native Plant Society is the only recognized body that can do the educating. First, we will have to educate ourselves. There seem to be only a scattered handful of people in the state who have ever tried growing native plants from seed, for instance. Their experiments have been far from extensive or conclusive, however, until a body of information about growing native herba-

ceous plants is made available (much has already been done with propagating and studying native woody plants by a few brave nurserymen), people will likely continue to think that growing natives means digging some flowers in the wild--and killing them in a garden.

How many people, even in the ConPS, are really aware of the possibilities of our native plains wildflowers, for instance? Who grows sand verbenas (*Abronia fragrans*), winecups (*Callirhoe involucrata*) or the native four o'clock (*Mirabilis multiflora*)? I have never grown these, or a host of other fine plains wildflowers, but I would be hard put to think of any plant in my gardens that could compare with these three for length of bloom, showiness, or landscape potential. As with most plains plants, digging plants that already have a considerably restricted range due to farming is futile. Dryland plants are notoriously temperamental about being transplanted and most have sensitive taproots.

Growing from seed is the only answer. The only way to change the sad state of ignorance about growing Colorado plants is for those who have grown natives to share their experience with those who would like to. Meetings of the Horticultural & Rehabilitation Committee of the ConPS have already provided a forum for widely scattered growers to meet and exchange information. In order to reach a wider audience, some more formal and more structured method of tabulating experiments is necessary. The Propagation Information Sheet is a first, tentative step in this direction. It is much too long, too detailed and too ambitious to be an overnight success. Several members of the Committee have agreed to spend time in the coming year to interview hesitant or recalcitrant growers for information about as many native plants as possible. This information will be distilled and published from time to time in the bulletin, with a view (in the distant future) toward compiling a short booklet for people who want to grow natives but don't know how to go about doing it.

I shudder to think how much water will flow under the proverbial bridge--or more aptly, down the drain--until there is a fairly widespread knowledge about the do's and don't's of native gardening. Even more harrowing are the uncountable plants that will succumb to ignorant transplanting, and the untold thousands that are daily bulldozed for roads, homes and coal--only to be replaced with bluegrass, junipers and a tangle of weeds. Surely every Coloradoan interested in our native plants will do everything in their power to bring about a saner, and more knowledgeable future.

Please take time to fill out and return the Propagation Information Sheet if you are presently growing native species. Or, save the sheet to send in when you do.

PROPAGATION INFORMATION SHEET

Return to:

Colorado Native Plant Society
Horticultural and Revegetation Committee

GENUS _____

SPECIES _____

COMMON NAME _____

FAMILY NAME _____

1. Describe the habit (manner of growth) of the plant:

Height _____ Spread _____

Foliage _____ Flowers _____

Fall Color? _____ Time of bloom _____

Other Features _____

2. Describe the habitat where you found the plant:

Elevation _____ County _____

Distribution (if known) _____

Conditions of site (slope, water, soil, etc.) _____

3. Describe the manner of introduction: (cutting ___ transplant ___ seed ___ other ___

If introduced by seed, please elaborate on reverse side.)

Cite season, transport, treatment: _____

Date of introduction _____ Length of time grown _____

4. Have you propagated this plant in cultivation? If so, how? _____

5. Describe how you grow this plant (soil, exposure, watering regimen, etc.)

6. Other comments:

Name of grower _____

Address _____ City _____ County _____ Zip _____

SEED GROWING INFORMATION SHEET

1. Describe the seed (sketch if possible):

2. When can this seed be found? _____
3. Manner of cleaning seed (if any): _____

4. Manner and length of time of storage: _____

5. Seed treatment (before sowing): Stratification? _____
Scarification? _____
Describe when and how seed was treated: _____

6. Where did you grow the seed?
Inside _____ Outside _____
Describe situation (Greenhouse, windowsill, etc.) Describe treatment (cold frames, broadcast, etc.)

7. What were the conditions?
Temperature _____ Soil _____
Containers (clay, plastic, size) _____

8. Germination results:
When was seed sown? _____
How long did it take to germinate? _____
How many germinated of those sown? _____
When and how did you transplant from container to site? _____

How long did it take from germination to maturity? _____

9. Please comment on any special conditions, treatment, pests, etc. you may have encountered: _____

EASTWOOD MONKEY FLOWER - Mimulus eastwoodiae

by James E. Ratzloff
Botanist, Bureau of Land Management

A rare plant will occasionally escape notice by botanists due to its secluded habitat. This has happened in Colorado with Mimulus eastwoodiae, Eastwood Monkey Flower. Although historically known to be endemic to southeastern Utah and northeastern Arizona, the first Colorado locality of M. eastwoodiae was not discovered until 1975. M. eastwoodiae was first seen and photographed in Escalante Canyon by Paul Maslin and Panayoti Callas, both from Boulder, on August 26, 1975. They did not collect specimens. Since then it has been found and collected by a number of other botanists in a variety of locations. Another locality was discovered this last summer. Both are in secluded canyons in the southwestern quarter of the state.

The habitat of M. eastwoodiae is unique: shallow caves at the base of steep canyon walls. The caves consist of a rear wall that arches gradually upward and outward into a massive overhang. They are formed by the seepage of water out of the sandstone canyon wall; the water erodes away the sandstone, continually deepening the cave.



Mimulus eastwoodiae, Eastwood Monkey Flower



The water seep supports a lush association of plants, unusual in the dry, desert country. M. eastwoodiae is the uppermost stratum of these plants, growing directly out of the rock wall at the rear of the cave. It clings to the rock face by the roots of horizontal stolons. The chief plants that grow below M. eastwoodiae in the loose, moist soil are Star Solomonplume (Smilacina stellata), Helleborine Orchid (Epipactis gigantea), and Small-flowered Columbine (Aquilegia micrantha).

M. eastwoodiae's large (1½" to 2½" long) flower is bright red. It resembles a Penstemon flower in that it is tubular and two-lipped; but unlike Penstemon, it has four stamens rather than five. M. eastwoodiae's style is longer than its stamens, and the stigma at the tip of the style is two-lobed. The plant's leaves are ovate to obovate, toothed, and opposite on the stem.

M. eastwoodiae blooms in late summer, during August. By that time the Helleborine Orchid, Star Solomonplume, and Small-flowered Columbine are past bloom. The hummingbirds that pollinate M. eastwoodiae congregate around the caves, which are shady and cool in contrast to the hot, dry Pinyon-Juniper and canyon country surrounding them. Well-worn trails to a few of the most spectacular M. eastwoodiae associations are evidence that the local natives enjoyed these beautiful "oases" long before botanists discovered them. Because of its beauty and uniqueness, the M. eastwoodiae habitat is truly one of the botanical highlights of Colorado.

MINUTES OF NOVEMBER 14, 1977 MEETING

A meeting of the Board of Directors was convened at 7:00 PM November 14, 1977 at the Denver Botanic Gardens. The following Board Members were present: Hugo A. Ferchau, William Harmon, Kim Vories, Panayoti Callas, William Gambill Jr., William Weber, Barry Johnston, Libby Goodwin, Karen Hollweg, Jim Ratzloff, Scott Peterson, and Gail Evans. Society members attending included Mary Harmon and Janet Holm.

1. The first topic discussed was the next mid-year meeting, tentatively scheduled for the first week in April. Since the themes of past state-wide meetings have centered around Rare and Endangered species, and the Horticultural uses of native plants, the Board agreed that another committee should host the upcoming meeting. Bill Harmon, of the Education Committee, agreed to consult with his co-members about accepting the responsibility for this meeting to take place at the Denver Botanic Gardens. It was moved that a mid-year meeting with a social hour, business meeting and a selection of workshops to be scheduled some time around April tenth. This was amended to read specifically three workshops and a (program) meeting, and both the motion and amendment were passed by the BOD. It was suggested and agreed that a common theme appealing to a broad spectrum of the membership might be photography of native plants, with workshops on ecology or plant identification for the sake of members who are not active photographers. The details of the meeting will be resolved at the next board meeting in February, scheduled to precede the deadline for the bulletin to come out before the meeting.

2. Barry Johnston reported on the activities of the Endangered Species Committee over the past year. He noted that a vast literature has accrued around this subject in this period, and that the committee has had difficulty in delineating precise guidelines as to what constitutes an endangered plant in the state, and moreover what plants should be advocated for this classification. He noted that urban and suburban sprawl have not quite yet had quite the impact here that they have had elsewhere in the country. His committee has nevertheless resolved upon seven species of plants they feel are critical for the society to act upon. He said that the society should move in two directions:

- a) To encourage acceptance of certain Colorado plants on the Federal list.
 - b) To encourage the State to protect others.
- He felt the Endangered Species Committee should work more closely with the BOD and Legislative Committee in the future. The BOD agreed that the basis for protecting endangered plants relies on building a broad base of support for protective legislation, which in turn relies on education of the public, beginning with society membership. All members in attendance felt more information concerning the committee and its work, as well as the status of the Federal Act, should appear in the newsletter.

3. Barry Johnston resigned as chairman of the Endangered Species Committee for the coming year. The BOD unanimously accepted Janet Holm and Bill Harmon as co-chairmen of the committee.

4. Scott Peterson moved that CoNPS, c/o Anne Bliss, Box 2094, Boulder, Co. 80306, be accepted as a temporary Society Mailing Address until a permanent address can be settled on. The motion was seconded and passed.

5. Jim Ratzloff stated that the BOD should attempt to formulate a policy concerning re-vegetation, since many non-natives have hitherto been employed on a large scale for this purpose.

6. The BOD moved to exchange newsletters and other publications with all the Native Plant Societies that have formed in recent years.

7. The BOD approved that Jeff Pecka design a letterhead and stationary, subject to final approval at the next Board Meeting.

8. The next BOD meeting was scheduled for Feb. 6, 1978, at 7:00 PM at the Denver Botanic Gardens.

9. The meeting was adjourned at approximately 10:45.

 TREASURER'S REPORT

January 1, 1977-October 15, 1977
by Kim Vories, Treasurer

<u>Income</u>	
Memberships	\$520.00
Interest	41.23
Total	<u>561.23</u>

<u>Expenses</u>	
Newsletter	297.02
Award	17.91
Refreshments	4.10
Total	<u>319.03</u>

<u>Assets</u>	
Checking Account	15.09
Savings Account	1030.37
Total	<u>1045.46</u>

A NOTE FROM THE EDITOR:

This all began last April when I volunteered to help Scott Peterson with the CoNPS Newsletter. It would seem that things happen quickly in this organization, for just six months later (October) the Board of Directors appointed me as the editor. Scott will remain in the position of Publications Committee Chairman.

As an introduction, let me tell you that I am married, have three young children, live in Boulder, and am an AMATEUR botanist. I have some experience in writing, editing, and publishing, having self-published ROCKY MOUNTAIN DYE PLANTS in 1976. I am a contributing editor to INTERWEAVE magazine (a quarterly fiber arts/crafts journal) and editor of SPIN-OFF (an

annual publication for handspinners), and have done free-lance writing/editing as well. Other than family, my major interests have been in the textile arts/crafts, and through dyeing yarns I have become increasingly interested in plants, particularly the "native" species.

All of us have an interest in plants, particularly in the native species of Colorado. The CoNPS Newsletter provides an opportunity for you to let the membership hear about your favorite flowers or most despised weeds, your successes and failures with transplants, concerns over expenditures of federal funds for environmental studies in which the studies cost more than the valuation of the land, new plant discoveries, etc. The quality of this newsletter is only as good as the contents; so, please contribute your ideas, questions, and information.

The CoNPS Newsletter is published six times a year. Deadlines for submitting articles, notices, and other information are as follows:

December 1 (Jan.-Feb. issue)
February 1 (March-April issue)
April 1 (May-June issue)
June 1 (July-August issue)
August 1 (Sept.-Oct. issue)
October 1 (Nov.-Dec. issue)

Manuscripts should be typed double space, and there is no limit on length at this time. All subjects (technical or non-technical) pertinent to native plants growing in Colorado are welcome. The contents of this Newsletter are generally directed to the knowledgeable layperson interested in learning about the Colorado native flora. Ink line drawings and black/white glossy photos are welcome. The CoNPS Newsletter is copyrighted by the Colorado Native Plant Society unless the individual author chooses to copyright his/her own material. Manuscripts and other information should be sent to:

Anne Bliss, editor
Colorado Native Plant Society Newsletter
P. O. Box 2094
Boulder, Colorado 80306

BOOK REVIEWS

ALMOST EVERYTHING THAT YOU WANTED TO KNOW ABOUT GREENHOUSES

Lapidus, Paul, Ed., 1977. The Greenhouse Catalog of Catalogs. New York: David McKay. \$7.95. (ISBN 0-679-50649-7).

This recently published book (May, 1977) provides a multitude of facts to aid persons interested in purchasing or building a greenhouse. The editor discusses general information regarding greenhouses (equipment, siting, structure, etc.) in the first portion of the book. The remainder of the book consists of catalogs reprinted from thirty-six greenhouse manufacturers. Included in this section are unit costs, longevity of coverings and other characteristics. Whether you desire to construct a kitchen window or free-standing greenhouse, this publication will serve you well.

-J. Scott Peterson

SPEAKING OF DIARIES--WILL YOU KEEP ONE NEXT YEAR?

Holden, Edith. 1977. The Country Diary of an Edwardian Lady. New York: Holt, Rinehart and Winston. \$14.95.

In 1906 a young woman named Edith Holden kept a diary of her personal observations as she meandered through the countryside near her home in Olton, Warwickshire, England. She kept careful notes on plant and animal life, observations of the weather, and recorded her personal thoughts about such things as the "wonderfully large crop of oak-apples" or the sparcity of "bog-flowers"--even her delight at finding the creeping bell-flowers growing where she had seen them in years prior.

Mrs. Holden's notebook/diary was discovered last year--70 years after its writing, 56 years after her death--and recently published in September, 1977. The illustrations are beautiful and sensitive, thoughts on the seasons are timeless, and her ideas and observations are delightful. She is also careful to identify species correctly.

While this reproduced diary is not especially pertinent to the study of Colorado's native plant species, it should serve as motivation toward keeping track of one's observations. At the very least, the volume is handsome, well-bound, and worth perusing. It also would make a beautiful gift. And, it makes for interesting comparison with diaries from area/regional botanists (or naturalists) who contributed so much to knowledge of our local flora.

--Anne Bliss

MORE ON WORMWOOD

After the article on dyeing with *Artemisia* in the September-October issue of the CoNPS Newsletter, the following note was received from Dr. William A. Weber (University of Colorado) which is both interesting and informative:

Wormwood is a word-trap. The word has nothing at all to do with worms or wood, but it is certainly a good example of how the English show how little facility they had (have?) with foreign languages. The source of this word is an Anglo-Saxon word "wermod" that is believed to mean something like "keeper of the mind", from a supposed belief in the medicinal virtues of the plant bearing this name. Our Vermouth, a wine flavored slightly with wormwood, comes from the same source. Wormwood is a British corruption.

Also, people seem to have a bad tendency to spell *Artemisia* with an E -- *Artemesia*, which shows that they don't know that this genus commemorates Artemis, the majestic Greek goddess who carried a bow and arrows.

The following method of seed propagation comes to us via Barbara Hyde, horticulturist at the Boulder County Extension Office. For reference, the address there is:

1226 Main Street
Longmont, CO 80501
Phone: 444-1121
776-4865

USDA METHOD - SEED PROPAGATION

Materials Needed: $\frac{1}{2}$ gal. milk carton
ice pick
knife with serrated edge
stapler
waterproof tray to fit carton
large plastic bag
bottle caps
commercial potting soil
coarse vermiculite
aluminum foil
thermometer
seeds of your choice
notebook and pen

- Step 1: Close open end of milk carton with stapler.
Step 2: Slit edge of milk carton to form a lid.
Step 3: Pierce bottom side of carton with ice pick for at least 25 drainage holes.
Step 4: Fill with soil, tamping lightly.
Step 5: Top with $\frac{1}{2}$ " layer of vermiculite.
Step 6: Water thoroughly.
Step 7: Sow large seed, covering with additional vermiculite. Sow small seed on top of vermiculite without covering. Label and enter date in notebook.
Step 8: Fold a sheet of aluminum foil over lid to act as reflector.
Step 9: Close lid. Place tray under carton, using 4 bottle caps as support to prevent carton from touching tray.
Step 10: Enclose carton and tray in plastic bag, tying loosely.
Step 11: Place carton in warm place where temperature registers 75° - 80°. No additional watering will be needed until after germination.
Step 12: Check carton daily. At the first sign of germination, remove carton from bag; adjust the lid so that it stands upright. Place carton and tray in a window with at least 6 hours of direct sunlight. Germination will continue to progress. Enter germination date in notebook.
Step 13: Water only when soil and vermiculite feel dry when a finger is pressed into the mixture. Overwatering is a hazard to seedlings.
Step 14: The first pair of leaves is known as the seed leaves. When the second pair of leaves (known as the true leaves) appear, thin the seedlings to stand one inch apart.

- Step 15: One week before the expected transplanting date out-of-doors (date of last frost on Plains is May 15), begin the hardening-off of the seedlings by placing them out-of-doors in sunlight, but out of wind for 15 minutes the first day; on the second day increase the time to 30 minutes; on succeeding days increase the time until the seedlings can stay out-of-doors overnight.
Step 16: Three days before the date of transplant, use a sharp knife to score through the soil in a block around and in between each plant. This will cut through tangled root hairs and force the seedlings to make new root hairs within their own soil block.
Step 17: Choose a cloudy day or early evening for the transplanting procedure. Set each soil block and plant slightly deeper than it was growing previously. Water the seedling gently to settle the soil around them. Mulch with one inch of dried grass clippings, straw, or any other light-colored material. Shade each seedling for a few days with a non-metal object (strawberry box or shingle) that will prevent wind damage. Keep the seedlings moist but not soggy.

NEW MEMBERS

Ann Hoghaug
720 Cooper
Ft. Lewis College
Durango, Co. 81301

Mrs. C. S. McClintock
250 Maxwell Ave.
Boulder, Co. 80302

Barbara Ann McMullen
14795 W. 44th Ave.
Golden, Co. 80401

Janet Caniglia
2299 E. Floyd Place
Englewood, Co. 80110

Connie Braun
8405 E. Hampden #24L
Denver, Co. 80231

Shirley Furman
906 W. Peakview Ave.
Littleton, Co. 80120

Ms. Eleanor H. Hilliard
1263 Clayton Street
Denver, Co. 80206

Bill Hoffman
2000 Emerson
Denver, Co. 80205

Ruth Ashton Nelson
Box 1258
Estes Park, Co. 80517

James S. Cloninger
Valley Federal Plaza--505
Grand Junction, Co. 81501

Karl Hess
2721 McConnell Dr.
Laporte, Co. 80535

Dr. Janet Hohn
U. S. Fish and Wildlife Service
P. O. Box 25486
Denver Federal Center
Denver, Co. 80225

Walter J. Ruzzo
University Village East
1600 W. Plum
Fort Collins, Co. 80521

John Ballman
379 Philadelphia Avenue
Massapequa Park, N. Y. 11762

Marianne Daft
915 Norvell St.
El Cerrito, Ca. 94530

Hazel W. Olmsted
P. O. Box 1195
Boulder, Co. 80306

Kay C. Wylie
231 Cherry Ave.
Vacaville, Ca. 95688
