

COOPERATIVE EXTENSION

University of Arizona and U.S. Department of Agriculture cooperating.



the Cochise County Master Gardener

NEWSLETTER

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MAY 1991

PLANT OF THE MONTH

Peter Whitman
Staff Writer

Our selection for this month I like to call Desert Crocus, but it goes by many other names... Rain Lily, Fairy Lily, or Zephyr Flower. The real name for this flower is *Zephyranthes*.

Zephyranthes is a beautiful flowering bulb with rush-like leaves. If you've tried to grow bulbs but couldn't give them the attention they needed, this is the bulb for you. *Zephyranthes* thrives on neglect. It earned the name "Rain Lily" because of a unique attribute: if you allow it to dry out and die back, then water it, it will spring forth with new growth and blooms. This can be done on and off, wet and dry, to encourage bloom throughout the year. Frankly, who wouldn't love a plant that loves it when you forget to water?

The *Sunset Western Garden Book* states that *Zephyranthes* doesn't grow in our zones, but I have grown it here for many years. I've even seen it growing wild in Bisbee. I grew some from seed collected from those wild ones. It did take 3 to 5 years before they began to bloom, when grown from seed. None the less, if you enjoy growing things from seed it can be rewarding.

Zephyranthes come in pink, white, yellow, and all shades in between. The dark green grass-like foliage is good with rock gardens or borders. The lush appearance makes it good for a mini-oasis, close-up plant even though it doesn't need much water. I had mine planted by a down spout and never watered it. In the summer it would die back, then, when the rains came it would give quite a show.

If you want a bulb that is easy to grow ... and fun, you might try *Zephyranthes*. It can be found in many mail order catalogues.

Eric Schwennesen
Extension Agent,
Agriculture

2500 Fry Blvd * Sierra Vista, AZ 85635 * 458-1104

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NEWS FROM THE FRONT OFFICE

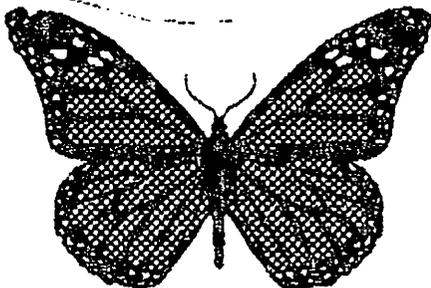
Jackie Dillon-Fast
Staff Writer

Those of you who have been receiving our newsletter for more than a year will remember last June when we lost one of our County Agricultural Agents, Deborah Young, to the mountains and pine forests of Yavapai County. Well, we are about to lose our second Agricultural Agent, Eric Schwennessen, this time to the mountains of Pakistan. Eric has been granted a one-year leave of absence and will be moving, along with his wife and two sons, to the Kashmir region of northern Pakistan at the end of this month.

Eric will be joining the Suketar Watershed Management Project in Kashmir. He will be working with United Nations specialists and local villagers to establish land management practices that maximize and protect the region's water resources. This will not be Eric's first experience working with Third World nations. He has made several journeys in Africa over the last ten years, and has extensive experience working with land and watershed management problems in developing lands.

We wish Eric and his family a safe journey and a productive and enriching year in Kashmir. If all goes well, we will be welcoming them back to Cochise County in May of 1992.

In the meantime, Cochise County is facing a severe shortage of Agricultural Agents! Supposedly the hiring wheels are turning faster than ever before and we hope to have a replacement for Deborah Young on board by July 1st. Since there are no plans to temporarily fill Eric's position, we will still have only one Agricultural Agent in Cochise County during 1991-1992.



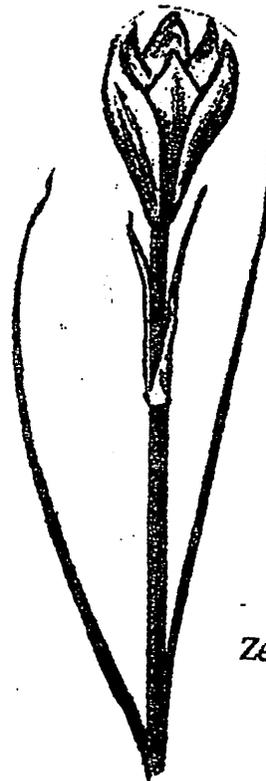
MAY REMINDERS

BEGIN DEEP WATERING
PLANT WARM SEASON CROPS
CONTROL WEEDS

(Controlling Weeds)

CHECK TREE TIES
CONTROL PESTS

A complete packet of "What-to-do" columns is available in the Sierra Vista Cooperative Extension Office as well as the pamphlet listed in parenthesis if you need to consult them.



Zephyranthes

Staff:

Jackie Dillon-Fast
Carolyn Gruenhagen
Rose V. Land
T.J. Martin
Peter Whitman

Articles to be published in next month's newsletter must be received at the Sierra Vista office by May 24.

THE HIGH DESERT GARDENER'S BOOK-SHELF: Wildflower Books

Jackie Dillon-Fast
Staff Writer

Wondering what those flowers are blooming along your back fence? Stumped when your kids ask you what those pretty yellow flowers are called? Wanting to put in a wildflower garden but not sure what to plant or how to do it? There are many excellent wildflower guides available that cover southwestern Arizona. These are some of our favorites. A few may be available in area book stores, but the best place to look for them is in botanical garden, desert museum, and conservation area gift shops.

One of the best books for basic wildflower identification is *A Field Guide to Southwestern and Texas Wildflowers* in the Peterson Field Guide Series [T.F. Niehaus. Boston: Houghton Mifflin Co., 1974 ISBN 0-395-36640-2 Approximately \$13.00 (paperback)] Although there is little written information on each wildflower, the color and flower keys and the detailed line drawings make the book handy for identification. The author tries to include a distinguishing feature of each flower to help you distinguish between similar-looking plants. The *Field Guide* will fit neatly into a backpack or large pocket and contains both color and black & white illustrations for more than 1500 wildflowers.

Another excellent field guide, and one which contains more written information than the Peterson guide but fewer wildflowers, is *The Audubon Society Field Guide to North American Wildflowers: Western Region* [Richard Spellenberg. NY: Alfred A. Knopf, Inc., 1979 ISBN: 0-394-50431-3 Approximately \$15 (paperback)] This is a well-made book with glossy color photographs, stitched and glued binding, and a vinyl cover - important qualities in any book intended for field use. Wildflower descriptions are detailed and include bloom times, habitat, and range. In addition, the author comments on interesting characteristics of the plant such

as its poisonous properties, use, and similar species. It is important to note that what the Audubon guide describes in print, the Peterson guide illustrates in its line drawings. So even though the color photographs are striking in the Audubon guide, they do not always show enough detail (or even the entire plant) and that makes identification trickier. Will fit into any backpack or large pocket and covers over 650 wildflowers.

If you prefer something less technical than a field guide, there are many smaller wildflower books available. *100 Desert Wildflowers of the Southwest* and *100 Roadside Wildflowers of Southwest Woodlands* [both by Janice Emily Bowers. Tucson: Southwest Parks and Monuments Association, 1989 & 1987 ISBN: 0-911408-72-X & 0-911408-73-8 Approximately \$5.00 each (paperback)] cover the more familiar wildflowers such as sand verbena, desert marigold, lupine, and brittlebush. These two books offer color photographs with brief but interesting paragraphs on each wildflower, and suffer from the same problem found in the Audubon guide: pictures that often do not show the entire plant. Though wider and thinner than the field guides, Bowers' books are a handy size and good, inexpensive introductions to area wildflowers.

You also may want to take a look at *190 Wild Flowers of the Southwest Deserts in Natural Color* [Grace B. & Onas M. Ward. Palm Desert, CA: Living Desert Assoc., 1978 ISBN: none Approximately \$10 (paperback)]. The Wards' book is not as well-made as the others and contains less information, but does cover some wildflowers not covered by Bowers.

If your goal is establishing a wildflower garden, the books above are good for making wildflower wish lists but are not practical guides to the design, planting or maintenance of a wildflower garden. *Arizona Highways Presents Desert Wildflowers* [Desert Botanical Garden Staff. Phoenix: Arizona Department of Transportation, 1988 ISBN: 0-916-179-15-X Approximately \$10 (paperback)] covers common wildflowers, their habitats, and bloom

times with brief chapters on establishing wildflower gardens and using them for food (complete with recipes!). A planting guideline chart covers planting method, seed treatment requirements, and planting times. The book has beautiful color photographs but of only 63 wildflowers.

WILDFLOWER WATCH - LOCOWEED SPRING

Jackie Dillon-Fast
Staff Writer

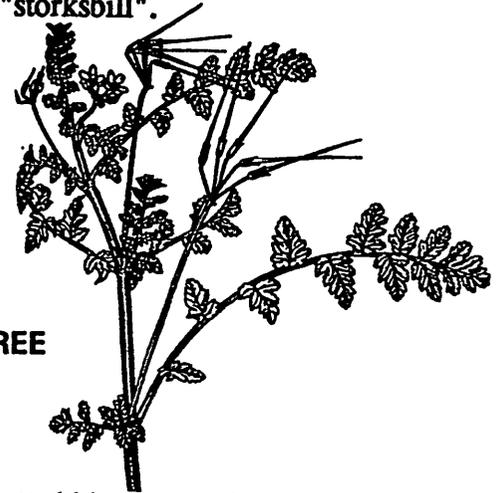
What a spectacular spring for purple-lovers! What a worrisome spring for cattle growers and horse-lovers! In addition to a wonderful display of goldpoppies, especially in Bisbee and along Highway 92 in Sierra Vista, the county is awash in purple locoweed, one of the few important poisonous plants in the state. Fatalities in horses, cattle, and sheep have been reported in locoweed boom years and according to the *Sierra Vista Herald*, around 100 range animal poisonings have been reported in Cochise County this spring.

For the average horse-less, cattle-less, sheep-less home owner, this spring's carpet of locoweed is a marvelous, magical display. Purple locoweed is a distinctive plant. It has pea-shaped blossoms and a strong fragrance. Since locoweed needs an unusually wet, cool spring to germinate, conditions it only gets every so many years, we may not see such an overwhelming display of locoweed for a long time.



LOCOWEED

Another purple wildflower currently in bloom, though in lesser quantities, is filaree. Unlike locoweed, filaree has a high forage value and is welcome on range lands. It has a very simple, five-petaled flower and is usually found in disturbed areas where little else will grow. A closer look at the plant reveals oddly shaped seeds resembling the head and long beak of a stork, giving it the nickname "storksbill".



FILAREE

Also spotted blooming wild in the populated portions of Cochise County: the first desert marigolds and prickly poppies, a scattering of orange globemallow, several kinds of primrose, and an interesting patch of chocolate flower. For a look into some of the best wildflower guides for our area, see this month's book review.

CUTTINGS AND CLIPPINGS

Total U.S. fertilizer consumption for 1988-1989 was 44.9 million tons of material - an increase of less than 1% from the previous year. (National Fertilizer Development Center of the Tennessee Valley Authority)

Although we haven't seen it, an "allergy calendar" is being offered by an allergy-remedy maker. It is a cardboard wheel that divides the U.S. into 10 regions. By spinning the wheel, you will reveal the monthly windows that tell when to expect allergy trouble from trees, weeds, and grasses. To get your free copy, call 1-800-727-5400.

ECOLOGICALLY-SANE PEST CONTROL (Part 4) ④

- m. Pirate Bug - (N) 1/20th of an inch long, these insects eat even smaller prey like Aphids, Spider mites, Thrips and Whiteflies.
- n. Praying Mantis - (C) 2 to 4 inches in length, these creatures will eat ANYTHING that moves; pests, beneficials or even other Mantids. They hunt by day and by night, often being found near street or building lights. Favorite prey include Aphids, beetles, bugs of all kinds, butterflies, flies and wasps.
- o. Robber Fly - (N) Gray 1/4 to 1 1/8 inch long flies. The adults and larvae both work hard at reducing your pest population. The larvae hung underground, feeding on grubs and grasshopper eggs. The adults specialize in flying insects, using a "perch and pounce" technique. They eat bees, beetles, other flies, grasshoppers, leafhoppers and wasps.
- p. Rove Beetle - (N) From 1/16 to 3/4th inch in length. The adults act as predators while the larvae can be parasitic also. Common prey includes Aphids, beetle larvae, Cabbage maggots, mites and small worms.
- q. Soldier Beetle - These 1/2 inch beetles look like lightless fire-flies. The larvae feed on prey found under bark or in the soil. The adults eat pollen and nectar as well as small insects. Effective on Aphids, Spider mites, grasshopper and other eggs, small caterpillars and beetles.
- r. Spiders - (N) Range from tiny "specks" to extra-large tarantulas. Some spiders spin webs, some talk their prey and some use the "perch and pounce" method. The prey is eaten outright or wrapped up and saved for later consumption. All insects and some small reptiles, birds and mammals are at risk to spiders.
- s. Syrphid Fly - (N) This 1/2 inch insect mimics many Hymenoptera, including bees, wasps and yellow jackets. The larvae is the helpful stage, eating up to 400 pests before it pupates. Primary prey include Aphids, Mealybugs, Leafhoppers and Scales.
- t. Tachinid Fly - (N) These 1/8 to 1/2 inch housefly look-alikes lay their eggs on the outside of their prey. The tiny yellow larvae hatch and burrow into the pest and kill it as they mature. Affected insects include many caterpillars, Corn Borers, grasshoppers, Gypsy Moths, Japanese Beetles, Mexican Bean Beetles and Sawflies.
- u. Tiger Beetle - (N) 3/8 to 7/8 inch in length. The adults run after and capture their prey, the larvae hide in a burrow and reach out and grab their dinner as it passes. They eat ants, aphids, caterpillars, flies, spiders and wireworms.
- v. Trichogramma Wasp - (C) These tiny (1/45th of an inch!) creatures are very effective parasites of many butterflies and moths. The adult lays eggs inside their prey, the larvae hatch, mature, pupate and then kill the host as they emerge. Hosts include Armyworms, Cabbage Loopers, Cabbage worms,

Codling Moths, Cotton Bollworms, Corn Borers, Cutworms, Fruitworms, Leafworms, etc. Approximately 200 species of Lepodoptera are affected.

4. Another weapon in your arsenal in the war against pests is the use of "biological warfare" in the form of insect pathogens. Just like humans and other animals, insects are prone to contracting diseases that either kill them outright or disable them enough that they are no longer a problem. A few of these pathogens are now commercially available for home use. They do not provide instant cures however, often taking days, weeks or even years before they approach total control. Their chief selling point is their safety; they are extremely species-specific so that you do not have to worry about their effect on beneficials or your pets and family.

a. B.t. (Bacillus thuringiensis) - (Dipel, Thuricide, etc.) This bacteria has to be ingested (through eating or grooming operations) in order to affect the pest. It disrupts inner cellular functions and paralyzes the gut. Feeding stops within an hour and the pest dies within one to two days. B.t. acts very quickly and has little to no residual effect. It breaks down quickly when exposed to sunlight and will last longer if sprayed on the underside of foliage also. Crops can be harvested and eaten immediately after treatment. It is available as a spray, a dust or as a wettable powder and is often mixed with a bit of soap or other solution to help it adhere to the plant longer. This insecticide is very species-specific and different strains are available. B.t. berliner - kurstaki targets caterpillars, Colorado Potato Beetles are affected by B.t. san diego and B.t. israelensis kills Mosquito larvae. It does not affect non-target creatures at all (including humans).

b. Milky Spore Disease (Bacillus popilliae) - (Doom, Japidemic, etc.) This bacteria affects grubs that come into contact with it in the soil. They develop milky-looking body fluids ("milky blood") and die. As each infected larvae dies, the bacteria multiply and spread further. The preparation comes as a dust or as pellets and is spread on your lawn or other affected area. The bacteria multiply in the soil and may take up to three or four years to reach total control., but then they are self-perpetuating and effective control will usually last for 15 to 20 years. Non-toxic to anything except grubs.

c. Nosema locustae - This protozoan parasite of grasshoppers is mixed with a bait and put out in the area in which you want control. Of the insects that eat it, approximately 50% will die, the rest of the infected pests pass the parasite onto their young. It may take 2 - 3 years before reasonable control is achieved and then you still have to deal with non-infected pests flying in from outside your treated area.

To be continued . . .

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