

FOLIAR FEEDING

by J.A. Mazrimas

Several years ago I decided to experiment and feed some of my collection of carnivorous plants with weak dilutions of organic and inorganic fertilizers to see what effect such treatment had on growth. I am convinced now that these periodic applications not only produce more vigorous growth but also seem to promote numerous flowers and more seed. The method that I use is the following:

I use several types of inorganic fertilizer (10-5-5 or 11-8-4) or fish emulsions (5-1-1) as an organic type. I make a solution about 1/5 to 1/10 the recommended concentration used for fertilizing ordinary house plants as stated on the label directions. This solution is then poured into a plastic sprayer that operates by pressing a trigger and the output can be regulated by turning the nozzle between a coarse spray and fine mist. It is best to use a fine mist for Droseras and Pinguiculas with an amount which just lightly moistens the glandular hairs or surface of the leaf. Within a few minutes, one begins to notice that several of the tentacles start to move inward and in the case of Drosera capensis, several leaves begin to curl up and form a roll. The edges of many Pinguicula leaves roll into a trough-like formation in an attempt to form a pocket for the various enzymes to operate. I like to experiment with different concentrations and volumes to find the combination that gives the best effect. I should add here that application of fertilizers should only be carried out on healthy, vigorous growing plants during the growing season. Usually, a fresh solution can be made and applied at a 6-8 week interval.

Other plants such as Drosophyllum and Byblis show no movement of their glandular hairs as in Drosera; but nevertheless, the effects of these applications are evident in the spurt of new growth or production of flowers. For Nepenthes I also use the same diluted fertilizer solution but in this one case, it is more effective to pour it directly into the pot so that the roots can take up the elements needed for rapid and vigorous growth. Pitcher formation is not inhibited if sufficient light of the proper duration is given along with this treatment.

If you have the time and patience, a small amount of this diluted fertilizer solution can be squirted from the same sprayer (by regulating the nozzle) into the opening of the pitchers of Sarracenia, Cephalotus, Heliophora and Nepenthes. Alternatively, a fine mist that is just light enough to moisten the outside pitcher walls without dripping is also effective. I frequently use this method with S. psittacina because of the difficulty of squirting fluid into the tiny openings.

Finally, one generally must be careful not to overspray the plants so that excess fertilizer drips into the root system since this is detrimental to the plant. It is best to make a lighter application since many species are especially sensitive to minute amounts of nitrogen which they efficiently absorb into their tissues.

SPECIAL NOTICES

Now that we have the photo reproduction business settled, we would welcome any photos readers would like to send in for consideration for CPN. They can be either color or black and white prints (all will, of course, be in CPN in black and white anyway), or you can send slides. Send along a little description. Since we may keep some in the files for use several issues ahead, we would suggest you send prints or slide copies you do not want returned. You will be given full credit for the photos and they will not show up anywhere else. The best reproduction will be obtained if the main subject fills most of the picture and stands out clearly from the background, and of course contrast must be excellent and the photos wire sharp to begin with.

At last we can announce a new book in English dealing with CP. James Pietropaolo has just completed a book with his wife and edited by Dr. Lorin I. Nevling, Jr., former curator and supervisor of the Harvard Herbaria. The book is called THE WORLD OF CARNIVOROUS PLANTS and covers Sarracenia, Nepenthes, Cephalotus, Dionaea, Drosera, Byblis, Drosophyllum, Darlingtonia, Pinguicula and Utricularia. There are over 60 photos, and instructions on growing are stressed. The book is available directly from James at 4646 Emerson Road, Canandaigua, NY 14424. The cost is \$5.95 (\$6.30 postpaid surface U.S.). (NOTE: As of CPN press deadline, May 1, the editors have not yet received copies of the book that they ordered. We presume there has been a publication delay, and we suggest inquiring of the author before ordering.)

With this issue, we begin distribution of the computer printed worldwide CP list, inserted into the mailing as a supplement. A few pages at a time, as mailing weight limits allow, will be sent out over several issues until mailing is complete and you will eventually have