BIOLOGY LABORATORIES

BY "THE OLD FOSSIL"
At Wells High School, Chicago

PLANT WATERING over long week ends may be solved. You should use any watertight metal container of large size which is a few inches deep. Place about four inches of an absorbent material in it. The material may be peat moss, vermiculite, sand, or similar material. Pour water into the material until it becomes quite damp. Plunge your potted plants into this material. Your plants will not dry out, become waterlogged, or drowned out. Experimentation will reveal how damp to make the material. You will soon be sold on the idea.

CONSULT YOUR FILM supply dealer for the following films:

The Onion, eleven minutes; growth from seed to seed harvest; elementary and secondary school level.

The Rabbit, eleven minutes; good on the reproductive system, emphasis is on the economic importance of the animal.

The Rabbit Development, thirty-three minutes; a comparative embryological development thru: sea urchin, frog, chicken, monotreme, marsupial to rabbit.

The Newt, ten minutes; general on the three common types of newts.

Vegetable Insects, twenty-three minutes; economic entomology, many types are discussed, the modern methods of control are explained in pictures.

MORDELLIDAE QUICKENS THE PULSE of but five close associates in our biological world. One is behind the Iron Curtain and is formal in his relationship with the other four. One of the four is in Japan, another in central Europe, a third in Italy, and a fourth, Mr. Eugene Ray, here at Wells (an experimental) High School, Chicago. *Mordellidae* (a group of insects) has but one descriptive name, "tumbling flower beetles." They are so called because they "tumble" when trying to escape as they are shaken from the flower into a net. They are pollen feeders. Their life histories are unknown. One is a minor pest on alfalfa. Another is a stem pest of one of the orchids. Mr. Ray has described approximately 250 genera and species. He has toured many of the Pacific Islands in his search. He has received consignments from all over the world. He works not only as a secondary school teacher at Wells but is also a part time worker with the Natural History Museum, Chicago. He is now in the process of publishing a monograph on the subject. New species are constantly being found. For you that are interested he is always glad to receive new material.

CHLOROPHYLL; perennially under foot, or in our nonfolding variety of lettuce, now appears in our dentifrice cleansing agent. Three of my best friends and of long standing are dentists. One was a classmate. One is a neighbor. The third has rented his office space from me for years. They attest to the power of chlorophyll. Dr. William F. Kangas, Chicago, "It is the only known inhibitor of caries once caries has started." Dr. Walter Ladwig, Elmhurst, Illinois, "I recommend it to all my patients." Dr. J. A. Hafert, U.S.N.R., Fulton, Indiana, "Fluorine for children's teeth; ammonia for prevention of caries; chlorophyll for inhibiting caries progress; these are the three important finds in dentistry in recent years."

THE DOG GONE after the skunk may return with a skunk odor. This, however, will be the only odor he will have provided you feed him chlorophyll supplemented dog food. According the hucksters of this product it is supposed to kill any of his body odors. That is provided he eats it for a week as a steady diet. TOF suggests a thirty-minute turn with a tub, brush, warm water, and shampoo. Then let your pet pup take his routine stint for the balance of the week with his favorite bone.

PLANT FEEDING TIME is when plants approach a growth period. Some growth periods are bud formation, spring leaf development, flower production, and fruition. If one of these periods of growth extends over several weeks a light feeding should be repeated at the end of three or four weeks. Another

feeding time is when temperatures, light, and water begin to increase toward their optimum. Plant feeding should be avoided when your plants are going into a dormant period. Dormancy happens in the late fall as grasses, perennials, trees, and shrubs are entering their winter rest period. This also happens to the plants you have in your home, classroom, or greenhouse whenever temperature, light and other growth factors are at a minimum or are diminishing. You may add cold drafts and extreme temperature variations over a twenty-four-hour period. If you do feed your plants at these times they have a rank, soft, succulent growth. If plants are in this condition they will easily winter kill or develop leggy plant parts. Both conditions are undesirable.

PURCHASING PLANT FOOD depends upon your needs. Manures not only furnish the three important food elements but also are composed of desirable organic matter for good soil tilth. The chemical fertilizers are about one fifth available chemicals and the balance inert filler. Commercial fertilizers (manures or chemical mixtures) may be bought by the ton, one hundred pound sacks, or small bags and paper boxes. A few pounds cost less than a dollar. Some plant foods are packaged as a liquid (generally water containing the soluble plant food materials). A few of these are fortified with vitamins. TOF has his doubts about this latter addition as a valuable adjunct. You may also buy the three important food elements separately. Nitrogen may be purchased as ammonium nitrate. Phosphorus is found in phosphate rock. Potassium may be bought in one of several of the salts.

SCIENCE FOR BETTER LIVING; Brandwein et al.; Harcourt, Brace and Company; 1950. This is a full year's course for eighth or ninth grade. It receives very excellent reviews.

STRANGE SEA LIFE; Robertson and Graham, New York; Henry Holt and Company; 1950; elementary school level.

INTERNATIONAL LIVE STOCK SHOW held in Chicago is an excellent means to maintain biological interest. The thirtieth, which was held last fall, was a good one. I requested my students in each class to save clippings and write-ups for a livestock notebook. For over two weeks each of the four metropolitan papers carried from three to eight pictures of the show in every edition. Also, there were available profused write-ups, editorials, and cartoons on the show for their selection.

THE MICROSCOPE, as a teaching aid, is being neglected. This is true in many of our beginning biology courses. It has much to offer the student which could be of interest to him. A demonstration microscope set up in a convenient part of the classroom will always be a focal point of interest for pupils. Living material for this purpose is abundant. Prepared slides are also helpful. Both are easily secured. The next time you order supplies place emphasis on a large selection of prepared slides. If you need living material include it on your requisition. Be sure to make a note on the order as to the date you desire the material to be delivered. Most supply houses will accommodate you and deliver the living material at the time you specify for its delivery.

HALF CENTURY COLLECTING EXPERIENCE is a long time. However, this is the record set by C. M. Goethe of California. He writes, "Just a word of very deep appreciation of your *How to Succeed in the Study of Biology*. National Park nature guiding came from surveys Mrs. Goethe and I made of similar work in some six European countries. We saved money to support it, then commenced at Lake Tahoe." TOF wishes to thank Mr. Goethe for his nice letter. TOF is glad he obtained pleasure from the article, especially the section *"Collect Specimens."*

TOF LIKES AN O'HENRY ending for this paragraph. Something with a snap and a bit of witty comeback. After laboring with the above notes to this point for over ten weeks the only thing that comes to his mind is that he is very tired. Very tired. But not too tired to welcome a few letters from you. It may take weeks to get an answer from him but send them on to THE OLD FOSSIL, 5061 North Saint Louis Avenue, Chicago 25, Illinois. [It came out even—an ashtray full of cigarette butts and a final (.)]