

March 1964 Volume 22 No. 3 C. Victor Lowrie, Editor

March Meeting

Date: March 10, 1964

Place: Mount Olivet Lutheran Church

50th Street and Knox Avenue South

Time: 5:45 P.M.

Price: \$1.75

Associate Editors Wm. H. Hull, Otto Nelson Neil Barry

Officers

Dwight Stone President
Paul M. Kroeger Vice-President

G. R. Christenson (Bud) Secretary R. E. Smith (Bob) Treasurer

Office of the Secretary 8300 Sheridan Avenue South

SPECIAL INTEREST PROGRAM

Thotography - Eng Hoyme

Garden Landscape - Archie Flack

Annuals - Bruce Johnstone

School Gardens - Les Johnson

At the February meeting, chairmen of Special Interest Groups for Roses, Delphiniums, Perennials and Begonias presented their stories.

After the above Special Interest stories are told, you will have an opportunity to attend a Special Interest Group meeting.

- 1. Photography Eng Hoyme
- 2. Roses Jack Peterson
- 3. Perennials Glen Cerney and Les Johnson
- 4. Begonias Sherm Pinkham
- 5. Delphiniums

If none of these fit your fancy, Archie Flack will conduct a "Bull Session" at which you may discuss garden problems or any other gardening interest.

SKRITCHING ALONG WITH PETER RABBIT

by Dwight Stone

Welcome to the four new members who joined the club in February. They are Don Berne, Verner Carlson, Evald Johnson and Clyde Thompson. You can spot them by the all-white badge they will be wearing. Greet them.

Harold Kaufmann is vacationing in Florida again this year. Harold is a member of the Miami Men's Garden Club which is sponsoring the 1966 National Convention.

If you are interested in a special interest group, give the chairman a call and help him get his group started. Les Johnson and Glen Cerney invite you to join the Perennial group if you are not already registered elsewhere.

Muriel and Cortis Rice received word from the Clyde Chamberlains down Sun City way. Clyde says gardening in Arizona is a far cry from gardening in the rich black soil that he had in his garden here. Clyde says Chris has some real nice Gerbera this year. Greetings to both Clyde and Chris from all of us,

It is time for you to start thinking about your projects for the coming season. Archie Flack is ready to take your yard and garden into the Lehman trophy competition. There will be more about the Lehman Trophy in the next issue of The Spray.

From the raise of hands at the February meeting, it looks as though we will have a fair representation on the tour to Chicago, March 6, 7 and 8, for the Chicago World Flower and Garden Show. If you hurry, maybe you can still make a reservation. See you there.

It was encouraging to receive four new members in February and to have two more potential members at the meeting; but we can still use a few more good gardeners. If you have a friend who is interested in gardening, do him a favor and bring him to the March meeting.

The fellow who sits under a tree while his wife mows the lawn could be called a shady character.

Attendance so far this year is breaking modern day records. Attend the meetings and help keep this trend moving upward. Attendance at the January meeting was 66 and just a few less at the February meeting. How about 70 at the March meeting?

The tour of Bachman's on March 21 sounds like fun. It starts at 1:30 P.M., with refreshments at 3:00 P.M. The Easter flowers will be in bloom, so it should be a beautiful sight.

Just in case you don't remember, wives and/or girl friends are invited to attend this tour.

A quote to remember -

"A stranger is just a friend you have never met."

OPEN CLUB LETTER TO PRESTDENTS AND EDITIORS

What can we do to serve you and your club better? Are you using the services MGCA offers you? Are your members working on national committees? Are you telling your members what MGCA does for them? Is your club growing or are you going downhill?

These are your/our problems, mutually.

We are trying to help you in many ways. The most radical is our new MANAGEMENT TRAINING MANUAL, now only six months old and growing. It carries several pages of its fifty to date, aimed just at helping you, with more coming monthly. If your club doesn't own this, for a mere \$5.00 to George Spader's office, you'll get considerable help.

Do you need program suggestions? A set of treasurer's books? Club bulletin need advice or revamping? Some of your members interested in studying plant habits and culture of special interest groups? Want help in setting up a civic beautification and an industrial landscaping award contest locally? Want seeds of rare and unusual plants? With all of these problems and many more, we offer you help --- free for the asking.

Will you tell your members these things? Let them know occasionally of the benefits they get for their \$1.50 a year. Most of them don't even know MGCA furnishes the membership cards they get from your local officers annually. Please report to them either orally or through the pages of your club bulletin. This material in this letter, is sent to you six times annually just for that purpose. As a leader, we believe you want your members to know how valuable is their MGCA affiliation. Let's support the parent which chartered your club. We hope you will reprint much of this material, selected, of course, because of its news value. If it isn't what you want, speak up. Let us know what you want. We need to know your thinking just as you need to know your club's thinking.

MGCA leadership consists of 31 national officers and directors, and over 300 other national committee personnel. I've just issued a call for 100 more selected interested men to help on some new and very important work which will benefit all concerned. I'd appreciate nothing more than your recommendation of one or two men from your club who have ability and want a challenge. We're not going to try to dominate every second of their time, nor take their time from your club. Almost all of the hundreds of people working on MGCA have come up through local club work and most are still very active therein --- but we've all been in your shoes as club president and/or club bulletin editor. Here is a tremendous group of talent ready for your use to help in your club. All you need do is ask.

Won't you please tell your members what we relay to you here in this bulletin? Reprint from it, speak from it, mention the facts casually.

Thank you for your mutual interest with all of us in helping extend to others the pleasures of gardening and the advantages of an MGCA.

UNIVERSITY HORTICULTURE SHORT COURSE March 23-25, St. Paul Campus Student Center

Registration Student Center Second Floor Fee: \$1.00 per day; \$2.00 for all 3 days

Monday, March 23

VEGETABLE GROWING

North Star Ballroom, Student Center F. I. Lauer, Presiding

a.m. 9:00	Registration	·
9:30	Film: "Garden for Abundance" Illustrates soil preparation, planting and growing of vegetables	
9:45	Unusual vegetables for the garden	A. E. Hutchins
10:15	Gardening gadgets	A. Gerdin
10:45	Vegetable varieties	O. C. Turnquist
11:15	Question period	T. M. Currence, Moderator
	R. E. Nylund, Presiding	
p.m. 1:30	Plastic mulches	H. J. Hopen
2:00	Diseases and pests of tomatoes	H. G. Johnson
2 ; 3 0	Herbs for your kitchen	Verna Mikesh
3:15	Question period	L. C. Ayres, Moderator

UNIVERSITY HORTICULTURE SHORT COURSE Continued

Tuesday, March 24

HOME FRUIT GROWING

North Star Ballroom, Student Center W. R. Andersen, Presiding

a.m. 9:00	Registration			
9:30	Three new varieties	L. C. Snyder		
9:45	Chemical control of plant growth and fruiting	E. T. Anders		
10:10	Pruning fruit trees	O. C. Turnqu		
10:35	Pest control	Barkur S. Sh		
11:00	Questions and answers	Speakers and		
North Star Ballroom E. M. Hunt, Presiding				
p.m. 1:30	Growing everbearing strawberries	N. Miles		
2:00	Protecting fruits from wild life	B. Peterson		
2:30	Growing blueberries	N. H. Grimsb		
3:00	Panel on fruit questions	Speakers and		

UNIVERSITY HORTICULTURE SHORT COURSE Continued

Wednesday, March 25

ORNAMENTAL HORTICULTURE

North Star Ballroom, Student Center L. C. Snyder, Presiding

9:00	Registration	
9:30	Space, soil, light	Jane McKinnon
10:00	Shrubs or bushes?	R. Mullin
10:30	To spray or not to spray?	E. Hunt
11:00	Questions and answers	Speakers and Staf
	North Star Ballroom, Student Center W. R. Andersen, Presiding	
p.m. 1:20	Introduction of the new University of Minnesota garden Chrysanthemums for 1964	D A DL:11:
	only sanchemums for 1704	R. A. Phillips
1:30	Dutch elm disease	D. W. French
2:00	Raise them or buy them?	C. G. Hard
2:30	Lawn care in spring	N. E. Pellett
3:00	Questions and answers	Speakers and Stafi

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ALGA SOUP AND PROTEIN PIE Or: A Semi-Closed Ecological System for the Permanent Lunar Base*

This serious and rather frightening forecast, is the work of biologists H. Conrad and S. P. Johnson, respectively, research engineer and research specialist for the Space and Information Systems Division of North American Aviation, Inc.

* Reprinted from the Spring 1963 issue of the <u>Bulletin</u> of the Horticultural Society of New York, Inc. by permission of Mr. Ralph Bailey, Garden Editor, <u>House</u> and Garden.

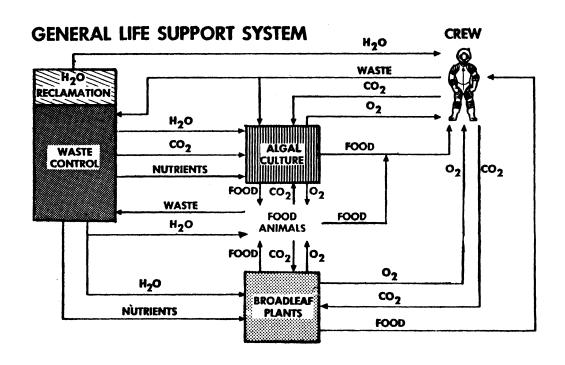
Yesterday's dreams of landing on the moon will become a reality within this decade.

MASA's Apollo will land on the moon and briefly explore the lunar surface. Following the Apollo series of flights to the moon, preliminary steps will be made to provide a permanent lunar base. During the first landings and subsequent development of the permanent base, man will undergo an extremely Spartan existence -- confinement in small spaces, condensed rations, encumbrance by heavy space suits, the difficulty of locomotion caused by a gravitational force one-sixth that of the earth, etc. In this early phase man will learn to cope with the moon's gravity and will gather information as to how to develop the permanent base.

Since the mission of the permanent lunar base will be to explore and to gather information falling under a variety of scientific disciplines the base will be staffed with scientists and highly skilled technicians. This group, unlike the true astronauts, will probably be unable to cope with the earlier Spartan existence and, hence will be afforded conveniences similar to those available on earth but somewhat reduced, perhaps.

We know from terriestrial observations that the lunar surface presents an extremely hostile environment. Temperature changes rapidly at sundown, varying from heat capable of frying an egg to cold capable of freezing sea water, within a span of minutes. There is no atmosphere as we know it to support aerobic life or to prevent meteoritic penetration of the lunar surface. Neither does the moon possess a magnetosphere which serves to trap, deflect, or channel harmful radiation. For these reasons, the permanent base will be subterranean in nature.

In order to survive in this subterranean base, man will be forced to construct a semi-closed life support system capable of providing the staff with sufficient food and water, a livable atmosphere, a waste management subsystem, and provisions for personal hygiene -- all contained in a minimal space. Although these provisions are easily furnished on earth, the construction of such a system below the surface of the moon presents a difficult task. In this discussion we will be primarily concerned with food and water, a livable atmosphere, and the waste management subsystems of the semiclosed life support system.



At first glance, this diagram of perpetual biological motion in space seems to have no beginning and no end. And in a sense, a very real sense, that is true. But an attentive reference to the accompanying text will explain how the whole cycle operates.

The system will differ from the chemical and physical systems designed for short-term life support in that it is basically a biological system, generally referred to as a semiclosed ecological system. This system comprises several integral subsystems, including the crew, a water reclamation and purifier unit, a waste disposal unit, an algal subsystem, a higher plant unit, and a small animal colony for meat production; it is shown diagramatically in the sketch. The maintenance of each subsystem must depend upon the efficiency of the other in typical cyclic form. Wastes of both crew members and the animals would be passed through a waste converter, which would then furnish the nutrients required for both the algal and higher plant subsystems. These two subsystems will then exchange atmosphereic carbon dioxide for oxygen and provide a food source for both food and animals through the well-known process of photosynthesis. Closely associated with this system would be a water reclamation unit to purify water for immediate consumption as well as for storage.

(Continued in April issue of The Garden Spray)