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"Continually striving to expand our horizons and content in the interest of Cactophiles everywhere."

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We are living in a very crucial time for attempting to do our share of the stewardship of our natural resources.

It behooves us to listen and read carefully every article and news broadcast so that we may knowledgeable regarding the dangers to these resources.

When we do hear or read anything that is disturbing in this area, we have a duty to write a letter to the officials, state and federal, expressing our concerns. Explain why you are interested and pass on your ideas. If they receive enough letters they will at least be aware of your stand and hopefully it may make them think even if it doesn't change their thinking.

Your Editor

Please add a be after may so it will say may be knowledgeable.

We are sorry to announce the deaths of our former treasurer, Kenneth Hartsock and Carl Horst, one of our most erudite members.

Reminder:

Did you ever wonder why Euphorbia pulcherrima is called a Poinsettia? After much searching I can tell you. A Mr. Joel Roberts Poinsett was in Mexico many years ago and observed these stunning brilliant red blooms that appeared at Christmas time. To his surprise he found the blossom is the small yellowish flowers in the center. The glorious red was the petal-like bracts. He decided it would be a fine plant for the Christmas season and introduced the growing of them to the United States. There are also white and pink forms. They will take much abuse, but do not like drafts. One year I kept my Poinsettia near the front door and leaves dropped off shortly. The next year I put my plant in a three sided display window in my classroom. To everyone's amazement it looked lovely until Easter vacation.

MAY THE RABBITS ROAM ANOTHER HOME

Dan Birt

To those Southern Arizonians who have moved out into the areas where the deer (and antelope) play and where a sharp toothed rabbit is seen every day, or at least where he gnawed last night, relief is in sight.

The June 1982 issue of American Vegetable Grower has listed a product to discourage the deer and rabbits. It is Federally registered as "Hinder or Repel." May this product end your discouraging words.

SOILS AND SOIL MIXES

by Dan Birt

The long time editor of Chatter, Mrs. Shelby, had written and asked me to prepare an article for her from the notes of my January 1978 talk to our club members.

Please forgive any repetition you may find in this article.

Soils are a lifetime study for some people and through their efforts we have these divisions and definitions to begin our discussion:

- I. Inorganic soils, where very low levels of organic matter are present and the mineral matter is very high.
- II. Organic or peat soils. In these soils organic matter is a very high proportion of the total. This best fits the soils of Florida, New Jersey, and other swampy and woodsy locals.

The origin of soils may be residual, developed in place or transported, a product of wind, water, gravity or glacial activity.

A cross section of the soil reveals a profile, layers that develop in depth and are identifiable around the world.

Soil chemical reactions vary from very strongly acid (pH 1 & 2) to pH 9 & 10 which are very alkaline. Drainage conditions, shallow water tables and restricted water movements often limit soil development, though this is seldom found in Arizona.

The mechanical classification of soils into many parts is called soil separates. It begins with a fine gravel of 1 mm in diameter containing 90 particles per gram to clay which has less than 1/50th of mm in diameter containing 90 billion particles per gram.

Soils have a definite form and structure that is related to: 1. Climate 2. vegetative cover 3. age 4. parent material from which it has been derived

Gathering all the soil separates into a collection in which no single nor group of separates dominates would describe the soil we most admire - a loam. This would be a soil in which the stickiness of the clay and flour-like silt is balanced by the gritty fine to coarse sand separate.

By percentages, a loam would consist of 10-20% clay, 40-45% sand. An isosceles triangle is often used as the way to express the separates combining to form a named soil.

Visually, soils appear white as in sands to the black of peat soils which are very high in organic matter.

Now we will discuss the soil mixes- particularly those for Cacti and Succulents:

Maybe it would be best to say there are no perfect mixes. Ten growers would swear by 10 or more mixes.

The California wholesale growers use 60% pumice and a mix of 40% peat and fir bark. Then he adds the minerals he wants per plant or adds them in later doses for his heavy fertilizing program. Light weight mixes make lower shipping cost for them.

The desert outdoor gardener on a bed of caliche also encounters far different problems than those of an indoor window ledge.

Bravely, we will present one textbook mix and notes on each portion, knowing full well that if your present mix works, you will stay with it.

Three separates or portions as follows:

1/3 loam A good garden soil or deep desert soil. Not a roadside barrow pit or roadway scrapings.

1/3 sand Good sharp, clean, coarse sand. Not blow sand or beach sand.

1/3 humus Peat moss, oak-leaf mulch, Baccto potting soil, mesquite litter if aged.

Avoid manure where possible. If in doubt, place in tightly closed can in sun all day. Carefully whiff for traces of ammonia. You will know.

Such a mix balances water retaining humus, sand for a good percolation and loam for minerals. If flowering age plants are growing in your present mix, flowered readily within a year of planting, have grown normally in color, spines, and plant body size, then your mix is probably good.

If plants sulk, wrinkle, elongate to a point, refuse to bloom, turn brownish on top, send out new parts reluctantly or diminutive in size, then we must start down a check list:

Too much peat moss or sand

Too little water

Too little light

Too little minerals (no fertilizer)

Too many insects

One last question, you say. How much is enough water? A five gallon bucket of soil can absorb one gallon of water, or about 20% of its volume when dry. Editors note: (A hydrometer is not costly and will tell you when the plant is dry. Or you can repot a plant and notice how far down in the pot the dampness goes.)

Some additional soil mixes as reported in several other articles.

University of California

1 part peat moss

1 part clean sand

Growers

1 part ^{a.} pumice or ^{b.} perlite

1 part humus or peatmoss

1 part sand

Charcoal may be added for special tupes of situation.

c. 34 parts lava cinders

30 parts composted bark

University of Arizona

1/4 sandy loam

1/8 sand

1/8 composted pine bark

1/4 perlite

1/4 vermiculite

PH adjustments and time release fertizer may be added.

This is an overview of how complex the subject

can become. It is like old fashioned cooking. Each uses his own recipe and adds a little of this or that to suit his purposes. If it works it is good so hang onto it.

One of our members is Helen Roubicek. She has one of the loveliest back yard gardens I have ever seen. Here are some of her thoughts:

WHAT'S SO GREAT ABOUT CACTI?

This question has occurred to many people. It is often prompted by the fierce defense of the spines. If one can set aside a stuck finger now and again, this interesting plant presents many challenges.

First of all, we live in the finest cactus country in the world. There is no better place to grow these plants. Many of them like it here in Arizona, even though they may not be natives.

Hardiness during the winter presents the biggest problem to the outdoor gardener. It is necessary to learn by experience what plants can take the borderline temperatures of the particular area where they are to be grown. Many are happy in the garden with glass jars, paper bags or boxes to cover them. The glass jars are best, of course, because they can be left on the cactus for months, enclosing them in little plant houses with both sun and warmth provided.

The window sill gardener finds cactus an interesting hobby also. They are beautiful miniatures available that are varied enough for all tastes. Robotias, sulcorebutias, chameocereus, lobivias,

and setiechinopsis are a few of the varieties which can be grown in small pots in a sunny window of an apartment.

The larger cacti are very useful landscape subjects. The older cactus plants become, the less likely they are to freeze. Choosing hardy varieties for landscaping with a good potential for growth and arranging them with this growth in mind can present an attractive yard with a minimum of work. One cannot get away from upkeep, but it is easier than watering, fertilizing and cutting grass.

Weeding around cacti is an activity to be avoided. One good way is spraying the weed seeds. A number of such sprays are available and they do not effect the cactus. They are seed specific.

Attractive cactus gardens are well pruned with no dead sections or weeds that detract from the beautiful shapes of the plants. Cacti can live happily with other types of succulents; so texture, colors, and shapes can be very artistically arranged, always keeping in mind the requirements of the individual plants.

Growing cacti from seed presents another fascinating approach. Watching the tiny plants appear as little green dots, seeing the tiny spines a bit later, noting the changes as weeks and months pass, is a very gratifying experience.

No mention has been made of cactus flowers for a good reason. Cactus flowers are short-lived, for some bloom for only one day.

While they are beautiful flowers, the cactus plant has its own charm and the flowers are really icing on the cake. For the most part, bloom periods are short, depending upon the year, few blooms may appear, so the true cactus lover likes the cactus plants for themselves.

Growing cacti from whatever one's standpoint, is a truly rewarding activity.

That's what is so great about cacti!

1982 has been a rather unusual year weatherwise. Arizona had a very mild winter while other areas had a large amount of cold and snow. Summer was cold in some places, rainy in other, extrat hot in still others. In September they had seven inches of rain where they usually only have $3/4$ of an inch. On Oct. 1st there was snow about $2/3$ of the way down the mountains and even some snow in spots of the valleys. The great-lakes area had an excess of rain. The east coast had a heat-wave yesterday and is bracing for a big storm to come through.

With all these varieties in weather we hope our friends will drop us a line and let us know how their plants come through this winter.

My husband, Earl, and I have attended the last three conventions of the Cactus and Succulent Society of America and we were surprised and delighted to find the large number of countries besides north and south America that are devoted to the culture and understanding of Cacti and Succulents. It was

a cosmopolitan experience to be chatting with folks from Australia, Europe, Africa and many other places. It is truly amazing how an interest in one little corner of life can unite such a variety of peoples together. It makes one wonder if all the potters, all the weavers, all the painters, all the sewers, all the plant growers, all the joggers, all the readers from all over the world could get together if they couldn't solve the problems that our politicians are making such a mess of.

Wherever you are, we wish you have very happy holidays this year and as many as possible will try to attend the convention.

I would like to leave you with this thought: In every religion throughout the world there is a saying, not the same words, but the same sentiment which goes like this:

Do unto others as you would like to have the others do unto you.

If all of us that love the same things could get together once a year or two and practice the above at all times, think of how we really could change this world. Someone once told me that when I did not receive a new thought from everyone I talked with, that it was my fault for not listening well or closely enough. Maybe if we all listen and quit talking we can make more of our lives and therefore the lives of those around us and they would do the same and like to ripples in a pond it will gradually spread.

By the time of the Fiftieth Anniversary of the national organization, Josephine was too ill to attend. Those attending all wore name tags that also gave the name of their club. When those sitting near us saw where we were from they would ask where Josephine was. At that time we did not know her illness was terminal so we just said she was ill.

We (my husband and I) visited with Josephine many times after she had to leave her home and live with her sister Irene and her husband Earle. It was good to see her wrapped in their love and devotion. Each time she would say, "I must get to work on Chatter, will you help me." And with tears in my heart I would promise to help.

Finally she had to be placed in the Desert Life Center. She wanted to be with those she loved and on her birthday less than a month before she died she had her wish. The whole family gathered and spent much of the day in the home with her. Carl Horst and his wife brought a cake and ice cream. Her family gave her yellow roses. John Taylor from Oracle came to the party. He had been a very good friend and hiking partner. She looked after his house when he was away.

It might help to know that she didn't suffer any pain as her tumor was in such a place on her brain that there were no nerves to carry pain.

She was a most wonderful person and Tucson and Oracle is a little less friendly as no one can fill the nitch she left vacant.