Some Thoughts on Hybridizing
with J. C. Munk

By Judith Carter past Secretary of LSAVC
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Note: J. C. Munk's death August 28, 2001 left a void in the Texas violet world. He and his wife of 54 years, Lenora, were the owners of the African Violet Shop in Houston and charter members and organizers of the Spring Branch African Violet Club. He is noted especially for his beautiful hybrids from the "Apache" and "Rodeo" series

Our Spring Branch African Violet Club in Houston has always felt privileged to have as one of its members J. C. Munk, who has been growing, showing, and hybridizing beautiful violets for almost 20 years. Although he has slowed a bit recently due to health problems, this kind and gentle man and his wife, Lenora, have kept up a vigorous schedule and continue to delight many growers with their lovely plants.

J. C. generously served as club program chairman and, not surprisingly, filling in with a program. J. C. was knowledgeable on many fronts after so many years in business, but he has certainly earned his place in hybridizing and chose to talk on this subject. These are some of his thoughts on the preparation, the process, and the results of hybridizing.

J. C. was the first to admit that he approached hybridizing in a haphazard way at first. He had read the few articles he could find, but then started to dabble blindly, finding his way by trial and error, just to 'see if he could do it'. He was not choosy about his parent plants at first, and therefore produced rather mediocre offspring.

A turning point was reached after he consulted with Winston Smith, who developed the Wrangler series, and he then felt encouraged and better able to proceed.

In preparing to create his new hybrids, J. C. had to study more carefully the plants that might become the 'parents'. Strong, symmetrical and compact foliage and blooms with many buds per stem and strong stems are desired, of course. As a participant in many shows, he also noted that the majority of winning plants demonstrate plainer, rather than exotically colored, blossoms on fairly flat, darker foliage or foliage with regular, well-defined variegation. Multi-colored blossoms are showy and loved by the public, but they can often by unstable and difficult to reproduce, so care is required here. He also noticed that light, lettuce-green, extremely wavy foliage was hard to grow successfully and decided to stay away from this type. His Rodeo series of hybrids demonstrate this decision.

Variegated foliage has always been attractive to J. C. and he enjoyed working with them in his Apache series. After all, he said with a smile, you should leave show plants disbudded for great lengths of time, so you might as well have some pretty foliage to look at while they are sitting there!

Currently (Jan/Feb 1997) J. C. calculated he had done 314 crosses and of course, one of the requirements of hybridizing is that one keep accurate documentation. His first notes were on odd scraps of paper and in simple ledgers but he graduated to regular notebooks along the way. Whatever method you use, just be faithful in recording your results. And

don‘t forget that hybrids must show stable growth through three successive generations to be considered for AVSA registration.

Generally, the mother plant is chosen for its foliage characteristics and the father plant, or the one that donates the pollen, for its blooms. J. C. preferred to avoid the strong purple-blooming plants simply because the purple traits are so strong and dominant that it is difficult to get many different looking offspring until you progress through several generations. Therefore, he enjoyed working with the pinks, lavenders, and whites, as well as multi-colors to achieve various results.

In choosing the plants to cross, it is imperative that a strong, young mother plant be selected. The mother plant itself should be a young but mature plant that is perhaps starting a second round of bloom and also is freshly repotted. The size should not be too large simply because this plant is going to have to sit undisturbed for four to six months on your shelf, using your space, lights, and food while the seeds develop, so the smaller the plant, the less resources you have to spend on it. The fresh soil is necessary because the plant should not be repotted during this time, since doing so might cause the seed pods to be dropped due to the stress of handling.

One of the critical things about hybridizing is to correctly gauge the age of the receiving blossom. J. C. allowed the first bloom on a stem to open and then waited for the second bloom on that stem to become about half open before pollinating the first bloom. And he proceeded to pollinate each bloom on that stem in the same manner. He always tried to use all of the blossoms that he possibly could on a mother plant, sometimes trying six or seven different crosses on one plant. He then removed any undeveloped or unused buds that would take energy from the mother plant. After all, the plant still should sit idle for several months before it has one or many crosses, so go for broke!

The age of the pollen is not nearly so critical in this process. In fact, it can be harvested and saved in a plastic bag for days and even weeks and still be viable. J. C. preferred not to deal with refrigerating pollen and the record keeping that it would take, so he merely set pollen aside on a shelf if he wished to keep it for a few days.

To achieve the cross-pollination, J. C. said, with a mischievous twinkle in his eye, that he used his “really expensive tools” - a sewing needle, small manicure scissors and his thumb nail. He first used the scissors to snip off the anthers containing pollen from the mother plant bloom because he wanted to eliminate the possibility of the bloom pollinating itself. Always keep alert for any self-pollinating blooms and remove them since a new hybrid is your goal. Then he snips off a pollen sack (anther) from the father plant and placing it on his thumb nail, breaks it open with his needle, scattering the pollen grains on his nail. With his nail or the needle tip, he gently places a few of the pollen grains on the tip (stigma) of the pistil of the mother plant.

If the cross is successful, the ovary will start to swell within a few days. Remember that it only takes one grain to pollinate the bloom, so one must be careful not to smother the stigma with too much pollen. This will cause the effort to fail. And don’t forget to tie an identifying tag onto each stem with the cross on it.

Once you have been successful in producing a swollen pollen sack, you simply keep the plant fed and in a stable environment for at least four months and preferably five or six months.

If the bloom has pollinated, the petals will dry up on the bloom stem and the ovary or seed pod will swell. The bloom stem will stay alive to continue the development of the pod until such time as it is ready to dry and drop off or harvest.

Once the whole stem has dried and at least, the minimum amoun6t of time has passed, J. C. plucked the dried stem and pod and simply placed them in a dry place (sometimes on top of a light fixture) with their attached tag for an extra week or so to make sure they are completely quiet and mature.

Once J. C. had harvested the seed pod and dried it for a week or so, he was ready to 'sow his crop'. Again, his materials are inexpensive and easy to find. He used small plastic butter tubs and crumbles into the tub a couple of "Jiffy" pots made of a peat material that will swell when wet. After a thorough wetting to swell the material, he lightly tamped down the material to minimize any crevices in the surface because the violet seeds need to be spread on top of the medium to successfully sprout.

He then took the pod and pinched it lightly voer a sheet of white typing paper. This is the best way to actually see the seed since it is so tiny it is almost invisible. Then from the paper it is easy to pour the seed onto the growing medium. An ID was attached and a plastic bag tied around the tub and the tub placed on a lighted shelf to incubate approximately four inches below the lights.

A seed pod can contain many hundreds of seeds, so if there are a large number it can take several tubs to use all of that seed. It is up to the hybridizer just how many tubs of one cross should be planted. Remember, there is still a lot of culling to be done as the plantlets grow!

Plantlets should begin to appear in the tubs within 4-6 weeks and after at least four leaves appear on each baby, it is time to select the ones to grow to maturity. J. C. cautioned that it is best to choose neither the largest nor the smallest seedlings, but the ones in the middle of the growing range. Of course, the smallest are the "runts", but the largest often turn out to grow to ungainly sizes and can have quite "leggy" or spaced-out foliage. He has had his best success with the healthiest seedlings from the "middle of the pack".

It is nearly impossible to grow all of the babies to maturity, so it is totally the hybridizer's choice as to which ones and how many to transplant.

J. C. used a tiny scoop whittled from a Popsicle stick to lift out his choices and plant them in small pots just like any other seedling. Then it's just a matter of waiting until they grow and bloom. And don't forget to label those pots!

J. C. had every respect for those growers interested in the genetics and scientific studies that horticulturists perform in analyzing hybridization. He just preferred to skip the scientific detail and go 'straight to the fun part'.

He enjoyed the random selections that occur just like in nature and is always amazed by the infinite variety – and surprises – of the results. He was always encouraging to new hybridizers and hoped that more violet growers would enter this exciting field.

Whatever route that you may choose as a fledgling hybridizer, J. C. urges you to have fun with it and wishes you the best of luck.