

2007 Award of Merit Winner

# Hybridizing for Fun

By Gail Trimble

## Seedlings!

While seeds can germinate within a week, most take one to four months. They prefer very cool temperatures – those above 70 degrees will quickly slow down germination. A germination rate of 25% is considered very good. When they emerge from the soil, baby seedlings first have two seed leaves called “cotyledons” (as shown in the photo below), which contain the stored food reserves of the seed.



When true leaves appear, the seedlings can be transplanted out of the flat and into a small 3 inch pot or a styrofoam cup with a drain hole cut out. Transplanting is best done with a knife or spoon, being careful not to break the tap root. The planting medium can be a commercial seedling mix or a sterilized potting soil. Adding a layer of sand to the top of the pot promotes quick draining and reduces the likelihood of damping off.

### Growing Indoors

Baby seedlings do best with a minimum of 16 hours of light each day. If grown under lights, place the seedlings 2-4 inches below the lights and move the lights up as the seedlings grow. When seedlings are young, the lights can be kept on 24 hours per day.



Seedlings under indoor lights

### Growing Outdoors

Seedlings can also be grown in a greenhouse or cold frame; however in the winter the door should be closed at night to protect them from wind and very cold weather. If transplanted into the ground, they must also be protected from rose pests.



A very inexpensive polyethylene greenhouse

### Care and Evaluation

Seedlings should be kept moist but not over-watered as this can cause damping off. Fertilizers can be applied at half strength every few weeks.

While evaluating your seedlings, it is helpful to take notes on disease resistance, form, color, and vigor. If disease resistance is your number one priority you should remove those seedlings that are highly susceptible – an example of a very diseased seedling is shown in the photo below.



While some hybridizers feel that seedlings will develop disease resistance as they mature, most

discard seedlings when they show moderate to heavy disease. Other reasons to discard are deformed petals, vegetative centers, no vigor, not enough blooms, and poor foliage.



A very clean seedling

Baby seedlings can bloom in as little as 6 weeks – if a once bloomer, they might only bloom one time or not at all during the first season. While the first bloom may not interest you, it is best to keep the seedling until you have seen additional blooms, since blooms can change in the number of petals and form.

For the hybridizer, who has devoted countless hours to cross-pollinating and cleaning and planting seeds, this is the most rewarding time of the year!