Different Types of Lilies in the *Lilium* Genus

Members of the lily genus are familiar to most people as important cut flowers, as the Easter lily (*L. longiflorum*), and as summer blooming bulb plants in perennial gardens. One of the most recognized plant names in the world is 'Star Gazer', the name given to the world's first first upright-facing oriental hybrid lily bred by Leslie Woodriff in McKinleyville, California.

While lilies are very popular garden plants, the major use of lilies in the world is as cut flowers and to a much lesser degree as pot plants. Several large and sustained breeding efforts exist in Holland, where dozens of new cultivars are introduced each year. Nearly all of these cultivars are used in the world cut flower industry, and are bred especially for characteristics as upright facing flowers, rapid and uniform growth and general desirability as cut flower. To this point, few, if any of these varieties found their way into gardens.

A parallel effort, although smaller in financial and human scope, lies with the many amateur breeders who are dedicated to breeding better garden plants adapted to a wide range of climates worldwide.

The genesis of the work reported here was a small scale planting of various hybrid lilies we were using for greenhouse experiments. Our observations after two or three years growth in Ithaca NY (USDA winter hardiness zone 5) was that most of the cultivars dramatically increased in size and number of flowers and many multiplied freely. Those earlier observations led to the multilocation trials described in this website

Asiatic hybrids (A)

- Mainly derived within the Sinomartagon section of the genus. Main species that make up Asiatic hybrid lilies include *L. concolor, dauricum, bulbiferum, davidii, pumilum, cernum, amabile, leichtlinii, tigrinum, duchartei, lankongense, bakerianum and nepalense*. While still an important group of lilies, they are rapidly being replaced in the world lily market by the LA-hybrids.
- Tend to have small flowers (4-5" inches diameter)
- 36-48 inches tall
- bright shades of gold, yellow, orange, rose, pink and white
- little to no fragrance
- early flowering
- upward facing flowers
- open dish shaped flowers
- good for cut flowers

Lilium longiflorum (L)

- This is the Easter lily as grown in North America, and is therefore nearly exclusively a "pot plant" in North America. In Europe and other areas of the world, *L. longiflorum* is grown in greenhouses as a cut flower (using varieties quite different from the one used in North American for pot plant forcing).
- a species native to Japan and Taiwan

- flower size 6-7" long
- 18-36 inches tall
- white, near white
- trumpet shaped flowers
- fragrant flowers
- outward to downward facing flowers

L. longiflorum x Asiatic (LA hybrids)

- A group of hybrids derived from *L. longiflorum* and various members of the Asiatic hybrid group. In the commercial lily industry, this group has substantially replaced Asiatic hybrid cultivars, and will probably lead to their virtual elimination in the market in the coming years.
- Flowers 4-7" across, mostly flat, some slightly trumpet-shaped
- 36-48 inches tall
- red, orange, yellow, peach, white. Colors have intensified substantially in the last 15 years.
- Larger flowers than Asiatic hybrids, and generally nicer, tougher leaves than the Asiatics.
- Great cut flowers
- Little to no scent
- outward facing flowers
- trumpet shaped flowers

Oriental (O)

- Complex hybrids of species such as: *L, auratum, speciosum, nobilissimum, alexandrae, japonicum, pardelinum, henryi and rubellum.*
- large flowers (6-8 inches)
- 24-60 inches tall, variable
- red, purple, pink, white, bicolor
- late flowering
- highly fragrant, overpowering to some
- strongly upright facing flowers (in nearly all modern hybrids), species with outward to downward facing flowers
- recurved petals
- good for cut flowers

Oriental x Trumpet (OT)

- hybrids of Oriental hybrids with trumpet (T) lilies such as *L. regale, sargentiae, sulphureum and henryi.*
- large flowers (6-10 inches)
- 24-36 inches tall
- whites, pinks, yellow, red, orange
- upward-outward facing flowers
- heavily scented
- good for cut flowers

L. longiflorum x Oriental (LO)

- Hybrids of *L. longiflorum* and one or more oriental hybrid cultivars
- large flowers (6-12 inches)
- 36-48 inches tall
- mainly white trumpets with darker centers, but pure whites, pinks and many other colors are here or coming shortly
- nicely fragrant flowers
- outward facing flowers
- trumpet shaped flowers, recurved petals