Girl Talk

Roberta Davids Hagen

"That one is definitely Randy,... on the other hand it could be Ricki,... come to think of it, I bet it is Betty...." After hearing similar exchanges for so many years, I decided it was time to take another look at "the Girls" of the us National Arboretum (USNA).

Because these cultivars share many similar characteristics, unfortunately it is common to find them mislabeled. From 1997 through 2002, I visited the US National Arboretum at least three times per week during bloom time, and observed their specimens of the Girls. The tags on 'Ann,' 'Judy,' 'Randy,' and 'Ricki' were labeled 1955, Dr. Francis deVos. The tags on 'Jane,' 'Pinkie,' 'Betty,' and 'Susan' were labelled 1956, W. F. Kosar.

The US National Arboretum announced the naming of eight new magnolia cultivars in an article in the Morris Arboretum Bulletin, 19(2), 1968, by T. R. Dudley and W. F. Kosar. These hybrids were selected from a breeding program that had actually begun in 1955. The late spring frosts in Washington, DC would frequently damage the blooms of precocious oriental species such as *M. stellata*, *M. denudata*, and *M. × loebneri*. However, the blooms of *M. liliflora*, were two to three weeks later, and would usually escape damage.

Dorothy Callaway in *The World of Magnolias* states: "In 1955 Dr. Francis deVos, research geneticist at the USNA, began the breeding work using *M. liliflora* 'Nigra' as the seed parent and *M. kobus* var. *stellata* 'Rosea' as the pollen parent. 'Nigra' was selected for its hardiness and late blooming characteristics. *Magnolia kobus* var. *stellata* 'Rosea' was selected on the basis of its habit, prolific flowering, fragrance, and mildew resistance. Dr. deVos' crosses began flowering in 1962 at seven years of age. Selections from this cross include 'Ann,' 'Judy,' 'Randy,' and 'Ricki.' "

The breeding program was continued in 1956 by Mr. William Kosar, horticulturist at the USNA. Using pollen of *M. kobus* var. *stellata* 'Rosea' on *M. liliflora* 'Nigra,' he produced 'Susan' and 'Betty.' Using pollen of *M. kobus* var. *stellata* 'Waterlily' on *M. liliflora* 'Reflorescens,' he produced 'Jane.' Using pollen of *M. kobus* var. *stellata* 'Rosea' on *M. liliflora* 'Reflorescens,' he produced 'Pinkie.'

One of the goals of the program was to develop hybrids, that would bloom at least ten days later than the earliest flowering group, thus minimizing the risk of being frosted. The new cultivars were chosen for their superior flower color, size, and profusion of bloom on plants that would stay relatively small and would retain an erect but rounded growth habit.

They have been frequently described as shrubby in growth habit, but I would prefer to describe them as moderate in size, suitable for the average city front garden. They are multistemmed and need very little pruning to maintain a rounded or conical growth habit. The leaves vary from ovate to elliptical in shape. The buds are very upright and show up to a very dark red-purple just before opening. The shape of the blossom is either cup or saucer shaped, and the color ranges from very light pink, to very dark red-purple at the peak of bloom.

In doing this survey, I found some differences from the original description in the Morris Arboretum Bulletin (MAB). Since these cultivars are frequently mislabeled, my goal for this article, was to identify distinct characteristics of each hybrid, which would give the garden observer better clues as to the correct identity.

In all the literature, 'Ann' was described as the first to start blooming. In the original description in the 1968 Morris Arboretum Bulletin, the starting bloom time of 'Ann' was around the second to third week of April with 'Judy,' 'Betty,' and 'Susan' in the third to fourth week of April. 'Randi' and 'Ricky' were supposed to bloom in the fourth week of April, 'Jane' in the first to second week of May, with 'Pinkie' blooming one to two weeks after all the others. In 1997, the first year of my survey, 'Ann' bloomed first, but in the third week of February, followed by 'Betty' two days later. In 1998 'Betty' bloomed first, but this time it was on March 21, followed by 'Ann' two days later. In 1999 and 2000 'Betty' was first, followed by 'Ann' by just two to four days later. In 2001, 'Ann' regained the title of first to bloom, followed by 'Betty.' The surprise came in 2002, when 'Randy' beat them all by four days. All six winters were much milder than usual, with the bloom time two to seven weeks earlier than the second to third week of April described in the original literature. My observations found that the time interval from the first to the seventh Girl to bloom was only four to seven days, with 'Pinkie' following seven to ten days after the first bloom.

In the following descriptions, note that when you see Dudley and Kosar's original descriptions quoted, the color designations are that of The Royal Horticultural Colour Chart, 1966. [At the end of this article there is a table that summarizes the characteristics of each of the Girls. Also, on page 11, there is a composite photograph showing the flowers from each of the Girls.]

Magnolia 'Ann'

'Ann' was hybridized in 1955 by Dr. Francis deVos using *M. liliflora* 'Nigra' and *M. stellata* 'Rosea.' One distinguishing characteristic of 'Ann' is that it is usually the earliest to bloom. The last six winters in Washington, DC have been unusual, to say the least, so it is probably unfair to take away her title as the earliest bloomer, based on my limited survey. The other distinguishing characteristic is that it is the best summer rebloomer.

The original description notes six to eight tepals, but I have found up to ten tepals. They are described as "broad subulate, or slightly obovate acute

tepals, which are 2-2.5in (5-6.3cm) long and 0.5-0.75in (1.3-1.9cm) wide. The tepals are erect, not flared like Judy." (MAB) However, I have observed that the tepals can get up to 3in (7.6cm) in length.

With 'Ann,' "the buds are 71A red-purple at the base, grading into lighter 70B red-purple from middle to apex.... The cup-shaped pre-anthesis flowers have tepals that are 71B red-purple, that fades into 75A, B, C, and D purple along the margins toward the apex. At anthesis and afterwards, the tepals are 72B red-purple basally, grading into 74D red-purple apically and marginally." (MAB) Generally, my observations have agreed with the above description of color. However at anthesis, I found the color to be lighter 71B or C redpurple, grading to 70B. The inside color of the tepals was 75D purple in the original description, but I found it could be 71B red-purple to 75A through D purple.

I agreed with the original description of the style lobes number and color for all of the Girls. For 'Ann' the style lobes number 50-60, 0.25-0.5in (0.6-1.3cm) stamens, and were 71A and B red-purple, especially at the base.

As mentioned previously, all the literature states that 'Ann' was always the first to bloom in the second to third week of April, but in the years that I have been observing her, she has been the first to bloom only twice.

The original description states that 'Ann' has no fragrance. Some catalogs describe a spicy fragrance. I found that the fragrance of the specimen at the Arboretum to be very light, and only vaguely "spicy."



Magnolia 'Ann.'

After 48 years at the National Arboretum, 'Ann' is approximately 14ft (4.3m) high and 15ft (4.6m) wide. 'Ann' has the best frost tolerance with 'Judy' and 'Betty' close behind. 'Ann' always puts on a good bloom show, and has the tidiest bloom presentation. It is also consistently the best magnolia to rebloom in this group.

Magnolia 'Judy'

'Judy' was hybridized in 1955 by Dr. Frances deVos using M. liliflora 'Nigra' and M.stellata 'Rosea.' The distinguishing characteristics of 'Judy' are that it is the slowest growing and smallest cultivar, with the smallest flower size.

All the literature describes ten tepals, but I have found 10-14 plus, more often, 12-14 tepals. There are three outer tepals "which are furrowed, while

the inner ones are distinctly keeled and widely flaring. The flowers at the anthesis have ten subulate to spatulate acute tepals measuring 2-3in (5–7.6cm) in diameter. The tepals are 0.5–0.75in (1.3–2cm) at the widest part and 2.5in (6.4cm) long. The buds are erect, candle like and pointed." (MAB) I found basically the same measurements. Frequently 'Judy' displays what could be best described as a single "wrinkle" in the middle of the outer aspect of the outer tepals. I have only seen this characteristic on the two specimens at the us National Arboretum in the Girls area. If you look closely at the accompanying photo, you should see the wrinkle.

The buds of 'Judy' were "71A red-purple at the base, grading into 70A red-purple towards the apex.... At anthesis, the tepals are 70B red-purple, fading into 70C and D red-purple towards the apex." (MAB) I observed the color at



Magnolia 'Judy.'

anthesis to be 70A red-purple, grading to 70C red-purple, which was lighter than the original description. The inside color of the tepals was 155A creamy white. The style lobes numbered 40-50, 0.25–0.5in (0.6–1.3cm) stamens, which were 71A red-purple.

The original description states that 'Judy' bloomed in the third and fourth weeks of April, but I found 'Judy' was usually the fourth or fifth Girl to bloom in the first week of flowering. In the past six years, 'Judy' has bloomed as early as the third week of February, or as late as the end of March. 'Judy' has only a very light fragrance.

There are two specimens of Judy' in what I call the Girl section of the USNA. After 48 years, one is 10ft (3m) tall and 13ft (4m) wide, while the other

is only 5ft (1.5m) tall and 7ft (2.1m) wide. While 'Ann' has the best rebloom, 'Judy' did come in a strong second for reblooming, with 'Randy' a weak third. 'Judy' is much like *M.liliflora* in size, shape and texture. 'Judy' is the best choice for the tiny city garden, but it is almost impossible to find it correctly labelled in the trade.

Magnolia 'Susan'

'Susan' was hybridized in 1956 by W. F. Kosar using M. liliflora 'Nigra' and M. stellata 'Rosea.' The distinguishing characteristic is that 'Susan' has the deepest colored tepals that develop into weak claws.

'Susan' has always been described as having six tepals, but I have found seven. "The erect, mostly subulate to clavate, obtuse tepals are 2.5–3in (6.3–7.6cm) long and 0.5–1in (1.3–2.4cm) wide above the middle. The tepals are gradually attenuated into weakly developed claws, and frequently the apical margins are unfolded. The flower buds are erect and straight." (MAB) I measured the tepals up to 3.5in (8.9cm) long, which were 0.5in (1.3cm) longer than the original description. In addition, I found that the tepals were sometimes slightly twisted.

The color of the buds was originally described as "primarily 71A and 72A red-purple, occasionally grading into 71B red-purple at the apex. As the flowers open, the outer side of the tepals is 71A and B and 72A red-purple at the base, and grades into 70B, 72B, and 74C red-purple towards the apex.... At anthesis and afterwards, the outer tepal surfaces of the tousled flowers may be 70A, 72A, and B, or 73C red-purple, grading towards the apex to 70C and D, 73D, and 74C and D red-purple." (MAB) My observed colors were identical to the original description. The color of the inside of the tepals was uniformly 74D red-purple.

The style lobes numbered 60-70, 0.33-0.5in (0.84-1.3cm) long stamens, and were 187 grayed-purple, although occasionally they were 71A red-purple.

The original description states that 'Susan' bloomed in the third to fourth week of April. I found that 'Susan' was usually the sixth out the eight Girls to break bud, and this would happen within five to seven days of the first one. 'Susan' has a moderately light fragrance.

After 47 years at the usna, 'Susan' is approximately 15ft (4.6m) tall and 15ft (4.6m) wide. 'Susan' is the least frost tolerant. After the freeze of 28 °F (-2.2 °C) on March 17, 2000, 'Susan' never really recovered to bloom well that year. All subsequent blooms that year were small and misshapen, while the color of the remaining blooms had taken on an ugly muddy hue.



Magnolia 'Susan.'

On the other hand, if you are looking for a consistently deep, rich color, with nice even bloom distribution in frost free years, 'Susan' would be an excellent choice.

Magnolia 'Betty'

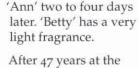
'Betty' was hybridized in 1956 by W. F. Kosar using M. liliflora 'Nigra' and M. stellata 'Rosea.' The distinguishing characteristics of 'Betty' are that it has the largest-sized flower and it has the most tepals, which form a well-defined claw.

'Betty' has 12-19 tepals. "At anthesis the individual spatulate or lorate, or sometimes subulate, blunt or slightly apiculate tepals are 2–3in (5–7.6cm) long. They become lax above the middle at maturity. They are constricted below the middle into a more or less well defined claw 0.25–0.75in (0.64–1.9cm) wide." (MAB) I found that the tepals could be up to 4.5in (11.4cm) long and 0.75–1.5in (1.9–3.8 cm) wide.

The flower buds were "...principally 71A red-purple: however, some fading occurs 73D and 74D red-purple at the apex. Some tepals, especially the outermost, are 187A grayed-purple. Upon expanding, the tepals are mostly 187D grayed-purple at the base, and grade into 73D and 74D red-purple toward the apex. At anthesis and afterwards, the outside surface of the tepals is 72A red-purple at the base, grading into 73D and 74D red-purple at the apex." (MAB) My color comparisons showed the same results. The inside color of the tepals was uniformly 155d white.

The style lobes numbered 70-90 stamens, which were 0.5in (1.3cm) long, 1868 and 187c grayed-purple.

The original description stated that 'Betty' bloomed the third to fourth week of April. In three out of six years of my survey, 'Betty' bloomed first, with



After 47 years at the USNA, 'Betty' is approximately 15ft (4.6m) high and 18ft (5.5m) wide. The large blooms appear out of proportion to the overall size of this small tree. 'Betty' has the second worst frost tolerance, only better than 'Susan.' However, 'Betty' is one of the more popular Girls. This is probably



Magnolia 'Betty.'

results from the very large size and the good coverage of the blooms. For my taste, these blooms do not age well, becoming messy and floppy as they open.

Magnolia 'Ricki'

'Ricki' was hybridized in 1955 by Dr. Frances deVos using M. liliflora 'Nigra' and M. stellata 'Rosea.'The distinguishing characteristics of 'Ricki' are the very twisted and contorted



Magnolia 'Ricki.'

tepals, with a prominent stripe down the center of the outside of the tepals.

The original description states that 'Ricki' has 10-15 tepals, but I have found only up to 14. 'Ricki' has "spatulate, obovate, or subulate and acute tepals of irregular width, are 2–3.5in (5–9cm) long and 0.5–1.25in (1.3–3.2cm) wide. After anthesis, the tepals flare and are reflexed at the middle." (MAB)

Prior to anthesis, the tepals were "71C or 61A-C red-purple at their bases, grading to 73A through C red-purple towards the apex.... At anthesis and afterwards, the tepals are 74C red-purple, or 61B red-purple at the base, fading to 75A through D purple, or 74C and D red-purple." (MAB) These colors matched my color measurements with one difference: some tepals, especially the most inner ones, could be 155D white (inside surface color), while the outer ones could have an inside surface color from 71A red-purple to 75D purple. The style lobes numbered 80-100, 0.25–0.5in stamens, and were 71A red-purple, or occasionally 187D grayed-purple.

The original description states that 'Ricki' bloomed the fourth week of April, but I found that it usually was the fourth 'Girl' to break bud, within three to four days of the first one. 'Ricki' has a very light fragrance.

After 48 years at the USNA, 'Ricki' is approximately 13ft (4m) high and 15ft (4.5m) wide. 'Ricki' will only tolerate a light frost and does not recover well if ever touched by frost. However, the twisted tepals with the center stripe give 'Ricki' a certain charm and does make her stand out from the crowded field of Girls. Once you know this particular characteristic, you will always be able to identify 'Ricki.'

Magnolia 'Randy'

'Randy' was hybridized in 1955 by Dr. Francis deVos using *M. liliflora* 'Nigra' and *M. stellata* 'Rosea.' The distinguishing characteristics of 'Randy' are that it is extremely floriferous with an erect and columnar growth habit and has tepals that overlap.

"The subulate to spatulate, obtuse or slightly apiculate tepals are 2–2.75in (5–7cm) long and 0.50–0.875in (1.3–2.2cm) wide at the apex. The apical margins are often infolded.... Pre-anthesis flowers are generally cup shaped and the tepals overlap with each other at least 1/2 their width." (MAB) I found the tepals to be up to 3.5in (9cm) long. The original literature stated that 'Randy' had 9-11 tepals, but I have found 10-13.

"The flower buds are erect, pointed and uniformly 71A red-purple, grading into 72B red-purple above the middle, and at the apex. At the base, the pre-anthesis tepals are 71B, or 74B and C red-purple, and fade to 70A through D red-purple, or 73A and B red-purple, towards the apex. At anthesis and afterwards, the tepals uniformly grade from 72A or 73A red-purple to 72D or 73D red-purple at the apex." (MAB) At anthesis, I observed the tepals to be 71C red-purple, grading to 71A or 75D purple. The inside color of the tepals was 155D white.

The style lobes numbered 50-70 stamens, 0.5–0.75in (1.3–3.8cm) long, which were variable in color from 59C, 71A, to 74C, all red-purple.



Magnolia 'Randy.'

The original description states 'Randy' bloomed the fourth week of April. I found that it was the first to bloom in 2002 and the third to bloom in other years. 'Randy' has no discernible fragrance.

After 48 years at the National Arboretum, 'Randy' is approximately 13ft (4m) tall and 17ft (5m) wide. I have to admit that it is the best overall performer of the Girls. When it comes to fullness of bloom, 'Randy' has the best overall bloom distribution. In addition, 'Randy' holds its color the best throughout the bloom time.

Magnolia 'Jane'

'Jane' was hybridized in 1956 by W. F. Kosar using M. liliflora 'Reflorescens' and M. stellata

'Waterlily.' The distinguishing characteristics of 'Jane' are that it grows into the largest tree of the eight Girls, it is the most fragrant, and it has cup-shaped tepals.

'Jane' is originally described as having 8-10 tepals, but I have found 5-12 tepals. 'Jane' has cup-shaped, symmetrical, "broadly obovate to spatulate tepals. At the anthesis, the tepals are 2–2.5in (5–6.3cm) long and

0.5—1in (1.3—2.5cm) wide at the rounded and obtuse apices. The tepal margins are inclined to be infolded." (MAB) I found that the tepals could vary from 2in to 3.5in (5—9cm) long.

The flower buds were "more or less uniformly 71A red-purple, grading into 74C to 74D red-purple, grading into 74D towards the apex.... At full anthesis and afterwards, the tepals are 78B, purple, and occasionally 73A red-purple at the base, grading into 73D and 74D



Magnolia 'Jane.'



Flower detail on Magnolia 'Jane.'

red-purple, or 75c and D red-purple towards the apex." (MAB) I observed the color of 'Jane' as 70B red-purple, grading to 70C red-purple, which was much lighter than originally described. The color of the inside of the tepals was 155D white. The style lobes numbered 90-110 stamens, 0.25–0.5in (0.6–1.3cm) long, and were 59B and C red-purple, or occasionally 71B red-purple.

The original description stated that 'Jane' bloomed the first to second week of May, which was three to four weeks after 'Ann.' In the six years I observed at the National Arboretum, 'Jane' came out within one week of the first six of the Girls. 'Jane' has only moderate fragrance.

After 47 years, 'Jane' has become the tallest and largest of the Girls reaching approximately 25ft (7.6m) tall and 20ft (6m) wide. This is not what I would describe as the aforementioned "shrubby" descriptor. 'Jane' is a nice enough selection, but it does not really have anything special or particularly interesting to offer.

Magnolia 'Pinkie'

'Pinkie' was hybridized in 1956 by W. F. Kosar using *M. liliflora* 'Reflorescens' and *M. stellata* 'Rosea.' The distinguishing characteristics of 'Pinkie are that it is the latest to bloom and has the palest pink, cup-shaped tepals.

'Pinkie' was originally described as having 9-12 tepals. I have never found one with nine. It usually had 10-12 tepals. It has "broadly obovate to spatulate and rounded or slightly apiculate tepals. The flower buds are blunt and stout." (MAB) I found that the tepals were 2–3in (5–7.6cm) long and 0.5–1.75in (1.3–4.4cm) wide.



Magnolia 'Pinkie.'

"The flower buds are uniformly 70A red-purple at the base, grading into 70D red-purple along the margins and towards the apex. Some flowers, especially the earlier ones, are darker 71A red-purple at the base, grading into 74c redpurple, along the tepal margins to the apex.... At the anthesis and afterwards, the tepals range from 73A redpurple at the base to 74D red-purple, along

the margins to almost white at the apex." (MAB) At anthesis, I observed the color to be 70°C red-purple grading to 70°D. the inside color of the tepals was 155°D white. The style lobes numbered 50-60°, stamens 0.5–0.75°In (1.3–1.9°CM) long, and were 71°B red-purple.

In the original description, it stated that 'Pinkie' bloomed one to two weeks after all of the others, which would make it four to six weeks after 'Ann.' In the past six years, 'Pinkie' has bloomed within seven to ten days of the first Girls. 'Pinkie' has a moderate fragrance.

After 47 years at the USNA, 'Pinkie' is approximately 18ft (5.5m) tall and 20ft (6m) wide. 'Pinkie' is my least favorite of the Girls. It has the poorest bloom coverage, a washed out light pink color, and what can best be described as a sloppy, overblown, frowzy appearance. It looks particularly bad when hit by frost, and never recovers to redeem itself in any way.

Final thoughts

When Dudley and Kosar first described the cultivars, they noted that the hybrids were triploid (2n = 57 chromosomes) which rendered them sterile. It is with great interest that I noted in the 2003 Fairweather catalog, an offering listed as *Magnolia* 'Jane' × 'Ann.' According to Dr. August Kehr, this cross should not have been possible because of the sterility of the Girls. Robert Hoffman of Fairweather Nursery said that this hybrid was from Tod Dodd, who originally got it from Don Shadow. It is similar in color to 'Ricki' and 'Randy,' but has flowers that are even larger than 'Betty.'

The origin of the names of the Girls has been variously attributed over the years. The most frequently cited explanation is that they were named for secretaries at the US National Arboretum, followed by a mix of staff members and family names. The most reliable account of the origin came from Sylvester 'Skip' March, former chief horticulturist at the USNA. 'Susan' was the daughter of Dr. Henry Skinner, head of the Arboretum. 'Betty' was the daughter of William Kosar. 'Ann' (the eldest), 'Ricki,' 'Randy,' and 'Judy' were the daughters of Francis deVos. 'Jane' was named for Jane Freeman, wife of Orville Freeman, Secretary of Agriculture under Kennedy and Johnson. 'Pinkie' remains a mystery. Skip March stated that no matter how much the staff tried, they were never able to get Kosar to reveal the source of the name.



Composite image showing flowers from each of the Girls.

All photographs by Roberta Hagen

	Flower size	# tepals	Outside tepal color at anthesis	Inside tepal color	Distinguishing characteristics
"Ricki"	2-3.5in long x 0.5-1.25in wide 5-9cm long x 1.3-3.2cm wide	10–14	74C red-purple, or 61B red-purple at the base fading to 75A through D purple, or 74C and D red-purple	Inner tepals 155D white; outer tepals 71A red-purple to 75D purple inside tepal color	Twisted and contorted tepals with a prominent stripe down the center of the outside tepal
'Randy'	2.5–3.5in long x 0.5–0.875in wide 6.4–8.9cm long x 1.3–2.2cm wide	10-13	71C red-purple grading to 71A or 75D purple	155D white	Extremely floriferous with best overall bloom distribution Tepals tend to overlap
,auer,	2-3.5in long x 0.5-1in wide 5-9cm long x 1.3-2.5cm wide	5-12	70B red-purple grading to 70C red-purple at apex	155D white	Tallest cultivar Most fragrant
'Pinkie'	2–3in long x 0.5–1.75in wide 5–9cm long x 1.3–4.4cm wide	10-12	70C red-purple grading to 70D red-purple	155D white	 Last to bloom Palest pink tepal color
'nnA'	2–3in long x 0.5–0.75in wide 5–7.7cm long x 1.3–1.9cm wide	6-10	71B or C red-purple grading to 70B red-purple	71B red-purple to 75A through D purple	Frequently earliest to bloom Best summer rebloomer
"Apnr,	2–2.5in long x 0.5–0.75in wide 5–6.4cm long x 1.3–1.9cm wide	10-14	70A red-purple grading to 70C red- purple, which is lighter than stated in the original description	155A creamy white	Smallest cultivar Smallest flowers Slowest growing
uesns,	2.5–3.5in long x 0.5–1in wide 5–9cm long x 1.3–2.5cm wide	2-9	70A, 72A and B, or 73C red- purple grading towards the apex to 70C and D, 73D, and 74C and D red-purple	Uniformly 74D red-purple	Deepest color flowers that develop into weak "claws"
,Betty,	2.5–4.5in long x 0.75–1.5in wide 5–11.4cm long x 1.8–3.8cm wide	12-19	72A red-purple at the base grading into 73D and 74D red-purple at the apex; however, early in the bloom, some outer tepals can be 187A grayed-purple	Uniformly 155D white	 Largest size flowers Has most tepals that form welldefined 'claws"