



Keeping
Up With
Research
36

FEBRUARY 1978

Flowering Crabapple Evaluations, 1972-77¹

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Crabapple species and cultivars were observed over a five-year period to screen the many new ones and compare them with the older selections.

Flowering characteristics were considered primarily, but other important criteria also were evaluated. These include growth form, resistance to wind deformity, foliage diseases, and fruit qualities (size, color, quantity, and retention).

Based on flower and foliage characteristics, some of the outstanding cultivars in the trial were Golden Gem, Inglis, Radiant, Royal Ruby, Snowdrift, and Vanguard, and Dorothea.

Although some species bear fruit which drops prematurely or shrivels, Spring Snow does not produce any fruit—nor consequently any litter. Particularly attractive in the fall are those which retain

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colorful fruit: Dorothea, Inglis, Jackii, Pink Spires, Red Jewell, Silver Moon, and Snowdrift.

Rust and scab reduce vigor and cause unsightly leaves and defoliation. These diseases are worst during extended rainy periods in April and May. Most native (*Malus ioensis*) crabs are inherently weakened by foliage diseases. These include Prairie Rose, Plena Nova, and Klehm's Improved and *M. coronaria* Nieuwlandiana, which are susceptible to cedar rust. Strathmore, Eleyi, Jay Darling, Alemy, and Hopa are severely affected by apple scab.

This summary represents preliminary observations and is not intended as a final evaluation. Because some recent introductions have not yet flowered, it is too early to evaluate their ornamental qualities. Some varieties in this report are not yet available in the nursery trade.

Sources

- A. Cole Nursery Co., Circleville, Ohio
- B. Hillside Nursery, Wichita, Kansas
- C. Interstate Nurseries, Hamburg, Iowa
- D. Mt. Arbor Nurseries, Shenandoah, Iowa
- E. Princeton Nurseries, Princeton, New Jersey
- F. Simpson Orchard Co., Vincennes, Indiana
- G. Skinners Nursery, Topeka, Kansas
- H. Smith Nursery, Charles City, Iowa
- I. USDA Plant Introduction Station, Ames, Iowa
- J. USDA Plant Introduction Station, Glenn Dale, Maryland
- K. Willis Nursery, Ottawa, Kansas

Crabapple evaluations at the Horticulture Experiment Field, Wichita, 1972-77

| Name of Species and/or Cultivar | Source ¹ | Disease ² | | 1977 Bloom Dates | Flower Rating ³ | Fruiting Retention | Fruiting Size | Habit ⁴ | Color | Description and Comments |
|---------------------------------|---------------------|----------------------|------|------------------|----------------------------|--------------------|---------------|--------------------|--|--------------------------|
| | | Rust | Scab | | | | | | | |
| 'American Beauty' | E | 0 | 0 | 4/4-4/10 | 3 | Poor | M | OR | Dark-red bud and flowers mostly in tops of tree, new foliage reddish. | |
| 'Snowcloud' | E | 0 | 6 | 4/4-4/14 | 5 | Poor | S | Y | Red bud opens pale pink, medium size, single flowers profuse. | |
| 'Ink Perfection' | E | 0 | 7 | 4/4-4/5 | 6 | Poor | S | Y | Red bud, opens semi-double pink, many flowers, entire branches full. | |
| 'Sundog' | H | 0 | 0 | 4/1-4/12 | 7 | Messy | L | R | Dark-lavender bud, opens to large lavender, single flower, attractive. | |
| 'Silver Moon' | I | 0 | 0 | 4/10-4/25 | 6 | Exc. | T | BR | Semi-upright, good tree form. Pink bud, opens to white, medium size single flower. | |
| 'White Candle' | C | 0 | 2 | 4/1-4/15 | 7 | Messy | S | OR | Upright, stately, vase shape tree, flowers top to bottom, dark-pink bud, opens to large semi-double pink flowers, profuse. | |
| 'Pink Spires' | C | 0 | 0 | 3/30-4/12 | 6 | Good | S | DR | Full dark-lavender buds open to small lavender flowers, fading to pale lavender, early flowering. | |
| 'Pink Cascade' | C | 0 | 0 | 3/30-4/10 | 6 | Messy | S | OR | Dark-lavender bud, opens to large flower, round head, weeping. | |
| 'Spring Snow' | C | 0 | 0 | 3/30-4/10 | 8 | Fruitless | | | Pink bud opens to single white. Full and showy. | |
| 'Royal Ruby' | F | 0 | 0 | 4/10-4/20 | 9 | Poor | S | OR | Tree has attractive orange bark. Fruitless. | |
| 4-17 | C | 0 | 0 | 4/1-4/14 | 9 | Fair | M | OR | Dark-red buds, flowers late, large dark double red fading to pink. Excellent flowering characteristics. | |
| 'Lemoinei' | A | 0 | 2 | Mid-April | Sparse 9 | Poor | M | OR | Dark-red bud, dark-red single flower, showy, reddish young leaves, small tree. | |
| ioensis 'Prairie Rose' | A | 8 | 0 | Late April | | | | | | |
| moerlandsii 'Liset' | A | 0 | 0 | 4/8-4/17 | 6 | Good | S | DR | Apparently does not bloom at young age. | |
| 'Snowdrift' | A | 0 | 0 | 4/5-4/18 | 8 | Exc. | T | OR | Late blooming, large, semi-double pink flowers, attractive except for cedar rust. | |
| arnoldiana | A | 0 | 0 | 4/5-4/17 | 7 | Good | S | O-Y | Dark-red bud, single medium size red flower, round-headed tree, wind-deformed. | |
| K-64 | C | 0 | 0 | 4/3-4/12 | 6 | Good | M | OR | Many dark-pink buds showy against green leaves. Flowers open white. Tree resists wind deformation. | |
| 'Dolgo' | K | 0 | 0 | 4/1-4/12 | 3 | Messy | XL | BR | Dark-pink buds open to large single pink flowers, fade to white. Showy. | |
| purpurea 'Eleyi' | K | 0 | 9 | 4/4-4/15 | 4 | Messy | L | OR | Dark-red bud opens to large semi-double red flowers against reddish new leaves. | |
| 'Vanguard' | K | 0 | 5 | 4/1-4/10 | 9 | Poor | M | R | Pink buds open to medium size white single flowers (sparse in '77), large fruit (jelly or spiced apple). | |
| 'Jay Darling' | K | 0 | 7 | 4/4-4/16 | 3 | Messy | L | R | Tree open growing, much scab. Red bud, large red single flowers, not a full display in '77. Reddish new leaves. | |
| 'Inglis' | K | 0 | 0 | 4/6-4/18 | 9 | Exc. | S-M | BR | Upright vase shape tree, full of red buds, large pink single flowers, showy. | |
| 'Barbara Ann' | C | 0 | 0 | 4/5-4/16 | 7 | Fair | L | DR | Irregular tree growth, sparse bloom in '77; red bud, large single red flowers, reddish new leaves. | |
| ioensis 'Plena Nova' | G | 8 | 0 | 4/15-4/30 | 8 | Messy | S-M | G-Y | Persistent winter fruit. Pinkish-white bud, small creamy white flowers, profuse. Oval crown. | |
| 'Red Jade' | A | 0 | 0 | 4/8-4/15 | 6 | Exc. | S | BR | Tree open to irregular. Dark-red buds open to semi-double red medium size flowers; reddish new leaves. | |
| 'Royalty' | G | 0 | 2 | 4/4-4/16 | 4 | Poor | M | P | Fire blight. Apple-like appearance. Green leaves. | |
| 'Radiant' | G | 0 | 2 | 4/1-4/15 | 8 | Fair | ML | OR | Large pink bud, opens to large pink double flowers. Late. Few fruit. | |
| 'Almey' | B | 0 | 9 | 4/4-4/15 | 4 | Poor | M | OR | Weeping habit. Dark-pink buds open pinkish white, green foliage, attractive orange bark. | |
| 'Patricia' | B | 0 | 0 | 4/9-4/16 | 3 | Poor | L | OR | Maroon color bud, opens to dark-purple flowers against purple foliage. | |
| 'Hopa' | B | 0 | 8 | 4/1-4/12 | 7 | Messy | ML | Y-OR | Upright oval tree, dense crown, full of dark-red buds opening to dark-pink medium size single flowers. Showy against reddish new leaves. | |
| 'Tschonoski' | I | 0 | 0 | none yet | .. | ..... | .... | .... | Scab. Spreading to irregular tree. Sparse flowers. Red bud, single dark-lavender flowers. | |
| | | | | | | | | | Late to leaf out, sparse bloom. Dark-red bud, large single dark-pink flowers. | |
| | | | | | | | | | Scab. Upright when young. Red bud opens dark-pink, medium size single, showy. | |
| | | | | | | | | | Upright formal crown, late to leaf out, silvery pubescent leaves, distinctive. Does not flower young. | |

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|----------------------------|-----|---|---|------------------|-------|-----------------------|------|------|--|
| 'Strathmore' | B | 0 | 8 | 4/1-4/10 | 4 | Messy | S | OR | Severe scab. Upright form, narrow leaves. Red bud, small lavender flowers. |
| 'Centennial' | D | 0 | 0 | 4/1-4/10 | 5 | Messy | XL | Y | Pinkish-white bud, opens to large single white bloom against green apple-like leaves and yellow bark. Edible, sweet fruit. |
| ioensis 'Klehm's Improved' | D | 9 | 0 | 4/16-4/30 | 8 | Messy | XL | G-Y | Late to leaf out, apple-like native crab, late blooming. Large pink buds inside tree open to large double pink flowers. |
| floribunda | D | 0 | 0 | 4/5-4/15 | 4 | Exc. | T | GR | Small dark-pink buds, open to small single pink flowers, green new leaves, orange bark. |
| 'Van Eseltine' | D | 0 | 0 | 4/8-4/17 | 8 | Exc. | M | GR | Upright, columnar shape, dark-red buds open to pink and white double flowers. |
| 'Golden Gem' | J | 0 | 0 | none yet | .. | ..... | .... | .... | Late to leaf out, upright dense crown, dark-green healthy foliage. Reportedly pink buds, white flowers, yellow fruit. |
| 'Cheal's Golden Gem' | J | 0 | 0 | 4/10-4/20 | 8 | Messy | S | Y | Red bud against green leaves open to medium size, single white flowers. Profuse flowers on young tree. |
| 'Edith' | J | 0 | 0 | none yet | .. | ..... | .... | .... | Reddish-bronze new leaves, spreading crown. Few flowers when young. |
| 'Mill End' | J | 0 | 5 | 4/5-4/10 | 1 | ..... | .... | .... | Vigorous, oval crown, Red Delicious-like dark-red bark. Red buds, open pinkish-white. |
| 'Hedwigiae' | J | 0 | 0 | none yet | .. | ..... | .... | .... | Irregular growth, oval crown, dark-copper new leaves. Young trees, no flowers. |
| 'Selkirk' | I | 0 | 0 | 4/4-4/10 | 4 | Fair | L | OR | Early, reddish new leaves. Red bud opens to medium size dark-lavender single flowers. |
| 'Dorothea' | C | 0 | 0 | 4/5-4/20 | 8 | Exc. | M | Y | Spreading crown full of red buds, opening to semi-double pink flowers. Showy, a favorite annual bloomer. |
| 'Coralburst' | A | 0 | 0 | 4/10-4/20 | 3 | No fruit produced | | | Tiny flower buds unfold before leaves. Small coral red flowers fade to pink. |
| 'Purple Wave' | K | 0 | 7 | 4/10-4/20 | 4 | No fruit produced yet | | | Irregular to spreading growth, red new leaves, dark-red buds, single bright red flowers. Dark-purple leaves. |
| Sargentii | G | 0 | 0 | Early April | .. | Good | S | DR | Flower date not observed. Profuse, nearly white buds and flowers. 'Rosea' differs only in rose pink buds. Red fruit. |
| coronaria 'Neuwlandiana' | G | 7 | 0 | 4/15-5/1 | 8 | Messy | XL | G-Y | Distinctive bronze-green new growth. Flowers late, large double pink flowers. Severe rust. |
| 'Kibebe' | C | 0 | 0 | 4/10-4/20 | 6 | Good | S | DR | Sparse leaf emergence, dead twigs. Dark-red bud, semi-double red flowers. Profuse in '77. |
| 'Dainty' | C | 0 | 0 | 4/1-4/8 | 5 | Fair | T | DR | Open to irregular growth early flowers, maroon buds, open to small dull-lavender, not showy against reddish new growth. |
| 'Profusion' | D | 0 | 0 | 4/4-4/18 | 7 | Exc. | S | BR | Large round-headed tree, dark-red buds open to single dark-pink flowers partially hidden by early reddish-green leaves. |
| 'Sparkler' | D | 0 | 1 | 4/1-4/10 | 8 | Fair | S | BR | Upright vase crown, dark-red buds open to semi-double medium size pink flowers. Showy. |
| 'Makamik' | D | 0 | 2 | 4/1-4/10 | 9 | Messy | L | OR | Spreading crown, full of red buds opening to large dark-pink single flowers fading to light-pink. Showy. |
| 'Tanner' | D | 0 | 0 | 4/1-4/15 | 8 | Good | T | BR | Blushing white bud opens to single white flower, profuse, showy. New leaves green, small tree. |
| 'Red Jewell' | A | 0 | 0 | 4/10-4/20 | 7 | Exc. | S | BR | Medium late bloomer. Creamy pink bud opens white, small, single flowers. |
| 'Red Splendor' | D | 0 | 0 | Mid-April | .. | Good | S | R | Much winter damage '74-75. Pink blossom, red fruit persists. |
| baccata 'Jackii' | KSU | 0 | 0 | Mid-April | .. | Exc. | S | DR | A Siberian crab reportedly having large single white flowers. Small fruit is retained well. |
| zumi calocarpa | B | 0 | 0 | Has not flowered | ..... | ..... | .... | .... | Seed propagated from isolated trees or grafted. Small tree, single white flower. Not vigorous and has not flowered. Reported to have pinkish-white flowers and attractive red fruit which persists well. |

1. Refer to sources, this publication.

2. Disease rated 0-9 with 0 = none, 9 = severe. Mean of 3 replications.

3. Flowering during 1977 season was rated 0-9 with 0 = none, 9 = most floriferous.

4. Fruit retention rated on 9/21/77. Those rated Excellent still retained attractive fruit past Nov. 15.

Size: T = Tiny, S = Small, M = Medium, L = Large, XL = Extra Large

Color: R = Red, BR = Bright-Red, DR = Dark-Red, OR = Orange-Red, Y = Yellow, G = Green