## How to Choose

$$
\begin{aligned}
& \text { a Crabapple } \\
& \text { for Your } \\
& \text { Golf course }
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Crabapples are very widely used on Midwestern golf courses. Based upon data from tree inventories of nearly 30 golf courses, the crabapple is usually ranked between 5th and 10 th among the most frequent tree species.

The crabapple is considered the most versatile full-sun ornamental tree. No other tree offers so much variety in shape, size and flower and fruit color. Although fewer than 40 species of crabapples exist, there are over 1,000 different varieties.

Unfortunately, many of the popular varieties of years ago are plagued with problems. Messy fruit is the number one complaint. Premature leaf drop follows behind at a close second. These undesirable characteristics have resulted in a rejection of all crabapples by many. Are there good crabapples? How do you select a good crabapple?

## Disease Resistance

Resistance to disease should be the first thing to consider when selecting a crabapple. Fire blight, a bacterial disease, is the most serious disease of crabapples. Its main method of spread is by honeybees as they fly from flower to flower. This disease is somewhat sporadic; it can be quite severe in some areas and occur rarely in others. If it is known to be a problem in your area, avoid crabapples that have susceptibility to it. This is a difficult disease to control with sprays (bactericides).

Apple scab is the most prevalent disease. Some varieties are prone to premature defoliation, especially in years when extended periods of wet weather occur in the spring and early summer. Many varieties are susceptible to scab but do not usually defoliate prematurely. Such varieties are tolerant to scab and often acceptable for use. Some varieties are resistant to scab. Sprays can be used to control the disease, but it generally requires five or more applications at seven-to-ten-day intervals starting when leaves begin to emerge. It is far easier to select a variety that does not require spraying.

Cedar-apple rust is a less serious fungal disease and is common on our native crabapples. It needs the native eastern red cedar as an alternate host. Fortunately, very few of the commercially available crabapples have any native bloodline in them.

Powdery mildew is a relatively rare fungal disease in the upper Midwest. It is more common where spring weather is warm and moist.

Before selecting a crabapple, check on its resistance to disease.

## Size and Shape

The second consideration is to choose a disease-resistant variety that fits its landscape.

Crabapples come in a wide variety of sizes and shapes, from dwarf shrub-like forms ( $3^{\prime} \times 6^{\prime}$ ) to trees that will grow to $40^{\prime} \times 40^{\prime}$.

Most are rounded to slightly horizontal in habit, 20-25' tall. In addition to shrub form, they have other shapes, including weeping, vase-shaped, upright spreading, spreading and round. Some are quite dense and compact; others are loose and open.
(continued on page 22)

## CRABAPPLES RECOMMENDED FOR THE MIDWEST

| TAXA | Flower Color | Fruit Color | HTMD | Form | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'Adams' | R | DR | 20/20 | Round | Dense, one of best reds, scab prone |
| 'Adirondack' | R | R | 20/10 | Upright | One of most narrow, parkway use |
| 'Amberina' | W | R | 15/15 | UpSpreading | New ${ }^{2}$, semi dwarf, PP \#6942 |
| 'Anne E.' | W | R | 10/15 | Weeping | Birds ${ }^{3}$, $=$ Manbeck Weeper |
| baccata Jackii | W | R | $30 / 30$ | Round | FB ${ }^{4}$ |
| 'Bob White' | W | Y | 20/25 | Horizontal | Birds ${ }^{3}$, very scab resistant |
| 'Coral Cascade' | W | O | 15/15 | Weeping | New, PP \#7142 |
| 'David' | W | $\mathrm{R}^{5}$ | 15/15 | Round | Open habit, scab prone |
| 'Donald Wyman' | W | $\mathrm{R}^{5}$ | 20/20 | Round | Nice fruit display |
| 'Doubloons' | W | $\mathrm{Y}^{5}$ | 20/16 | UpSpreading | Best of double flowers, PP \#7216 |
| floribunda | P/W | Y | 20/25 | Horizontal | Birds ${ }^{3}$ |
| Golden Raindrops ${ }^{*}$ | W | Y | 20/15 | Vase | Deeply cut leaf |
| 'Indian Magic' | P | O | 15/15 | Round | Nice fruit display, quite scab prone |
| 'Liset' | R | DR | 15/20 | Horizontal | Open habit |
| 'Louisa' | P | Y | 15/15 | Weeping | Rather fine texture |
| 'Mary Potter' | W | R | 15/30 | Shrub | Birds ${ }^{3}$, alternate bearing, $\mathbf{F B}^{4}$ |
| Molten Lava ${ }^{\text {® }}$ | W | R | 15/15 | Horizontal | Birds ${ }^{3}$, good for espalier |
| Pink Princess ${ }^{\text {TM }}$ | P | DR | 8/12 | Shrub | "Red Sargent" |
| 'Pink Satin' | P | R | 20/20 | Round | One of the better pink crabapples |
| 'Purple Prince' | R | DR | 20/20 | Round | Purple leaf color, PP \#8478 |
| 'Ormiston Roy' | W | YR ${ }^{5}$ | 20/25 | UpSpreading | Excellent post frost fruit color |
| 'Prairifire' | R | DR | 20/20 | UpSpreading | One of best reds |
| 'Professor Sprenger' | W | O | 25/25 | Round | Nice fruit display |
| 'Profusion' | R | DR | 25/25 | Round | One of best reds |
| 'Red Jade' | W | R | 15/15 | Weeping | Dependable weeping form |
| 'Red Jewel' | W | $\mathrm{R}^{5}$ | 15/15 | UpOval | Nice fruit display, PP \#3267, FB ${ }^{4}$ |
| 'Red Swan' | W | R | 15/15 | Weeping | New ${ }^{2}$, PP \#6974 |
| sargentii | W | R | 8/15 | Shrub | Birds ${ }^{3}$, alternate bearing |
| 'Sentinel' | W | R | 15/10 | UpSpreading | Parkway use if pruned |
| 'Snowdrift' | W | O | 20/20 | Round | Birds ${ }^{3}$, $\mathrm{FB}^{4}$ |
| Sugar Tyme ${ }^{\text {® }}$ | W |  | $20 / 20$ |  | PP \#7062 |
| 'Zumi Calocarpa' | W | $\mathrm{R}^{5}$ | $25 / 30$ | Horizontal | Spring birds ${ }^{3}$ |
| 'Zumi Wooster' | W | R | 25/25 | Horizontal | Good winter fr. color |
| ${ }^{1}$ Fruit size is $5 / 8$ " or smaller |  |  |  |  |  |
| ${ }^{2}$ Father Fiala introduction |  |  |  |  |  |
| ${ }^{3}$ Birds attracted to fruit |  |  |  |  |  |
| ${ }^{4} \mathrm{FB}$ - Fire Blight may be a problem in areas of high incidence |  |  |  |  |  |
| ${ }^{5}$ Post-frost fruit color |  |  |  |  |  |
| Flower Color: $\mathrm{R}=\mathrm{red}, \mathrm{P}=$ pink, $\mathrm{W}=$ white, $\mathrm{P} / \mathrm{W}=$ pink \& white <br> Fruit Color: $\mathrm{R}=$ red, $\mathrm{DR}=$ dark red, $\mathrm{O}=$ orange, $\mathrm{Y}=$ yellow, $\mathrm{YR}=$ yellow-red, $\mathrm{OR}=$ orange-red <br> Form: UpSpreading $=$ upright-spreading, UpOval $=$ upright-oval |  |  |  |  |  |

## Fruit Characteristics

The third consideration is to choose a tree with small, persistent fruit.

Crabapples should not have messy fruit. Superior varieties have bright glossy fruit that is $3 / 8^{\prime \prime}$ to $5 / 8^{\prime \prime}$ diameter and generally remains on the tree after it ripens (persistent). Color choices include: yellow, orange, red, dark red and purple. Bright red and orange varieties are often the most showy. Some varieties retain a colorful reddish fruit all winter. Many of the varieties have fruit that are attractive to the fall and spring migrating birds. The fruit display will last for a month, and those lasting all winter are on display for four-five months.

## Crabapples require

 more pruning than most trees and should be pruned once every three-four years. Vigorous vertical shoots (watersprouts) should be pruned while leaving more horizontal branches.
## Flower Characteristics

The last consideration is flower color; the flower display will last for approximately one week. Yet, most crabapples are chosen for their flower display. Crabapples have three basic flower colors: white, pink and red. Most varieties have flowers with five petals (single), a few have six-ten petals (semi-double) and a few have more than ten petals (double). In general, red flowering (and pink flowering) crabapples are more susceptible to scab. Also, many of the red flowering crabapples have dark red and less showy fruit. Some of the pink and red flowering crabapples have a tendency to fade to a dirty white.

## Basic Maintenance

Pruning-Pruning should be based upon its characteristic form. Crabapples require more pruning than most trees and should be pruned once every three-four years. Vigorous vertical shoots (watersprouts) should be pruned while leaving more horizontal branches. Crossing and overlapping branches, and branches directed inwardly, should be removed as they develop. Any shoots coming from the ground (suckers) should also be removed. Suckers are often a major nuisance and should be removed as they develop. Another way to reduce suckering is to demand trees grown on MM111 understock, and try to avoid crabapples grown on common apple.

Watering-This is required for all trees. Keep them wellwatered during dry periods. Established trees should get about $l^{\prime \prime}$ of water per week. Water them with long slow soaks (two-four hours) once every two-four weeks (depending on how hot, windy and dry it is). Newly planted trees are often over-watered to death. Newly planted trees should get watered (continued on page 26)


## Farewell to Jerry Crist

## Colonel Jerry A. Crist, U.S. Air Force retired, passed away Monday, January 29.

Jerry was superintendent for several years at the Glenview Naval Air Station. Then he and his wife, Nancy, moved to Shady Lawn G.C. in Crete. He was superintendent and they built a home on the seventh fairway. His last golf venture was building a nine-hole executive course with Buz Didier in Monee, called Golf Vista.

Jerry graduated from the University of Illinois.

Jerry and Nancy loved to travel.

Off-season, his activities were numerous:

- Refinishing and caning antique rocking chairs.
- Deer-hunting in Wisconsin.
- Cheering at Big Ten football games.
- Substitute-teaching at the local high school.

For culture, he and Nancy would move to downtown Chicago for a week each year. There they would attend the opera, a show or two, visit the museums and eat at fancy restaurants.

I first met Jerry at Adolph's annual Christmas party. He and Oliver Miles were cleaning up on Paul Voykin and Kinky Trometer at the poker table.

I looked forward to his earlymorning phone calls. "And what have you done for God and your country today?" and then, "Let's do lunch this week."

Jerry and Nancy were anticipating a six-month visit to China, where he was invited to teach, when he was stricken with cancer.

The Colonel was buried downstate, in his hometown of Milford.

God bless you, Jerry Crist.
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How to Choose a Crabapple for Your Golf Course (continued from page 22)
about once per week in dry weather (probably not at all when sufficient rainfall has occurred). Inspect the soil before watering to see if it is moist or dry. Crabapples take dry weather fairly well.

Pests-There are quite a few critters that like crabapples. Deer can be a major problem eating both fruit and tender branch tips. Deer are hard to control. Voles (tailless meadow mice) and other rodents (especially rabbits) can eat the bark during the winter and
girdle the tree. Plastic tree guards are good for stopping rabbits and deer rubbing their antlers. The eastern tent caterpillar makes ugly tents in the spring but these are easy to control by physically removing them (never burn them) or spraying them with insecticides. In some areas, the Japanese beetle can cause damage to foliage. Insecticide sprays are recommended for control but may not help much. The beetles can cause a lot of damage before the insecticide kills them.

Now professor of urban forestry at WIU, Dr. Green previously worked for 13 years at the Morton Arboretum. A crabapple specialist, he has also conducted numerous golf course inventories. One of his current pursuits is a study on the successful fall planting of oaks.

