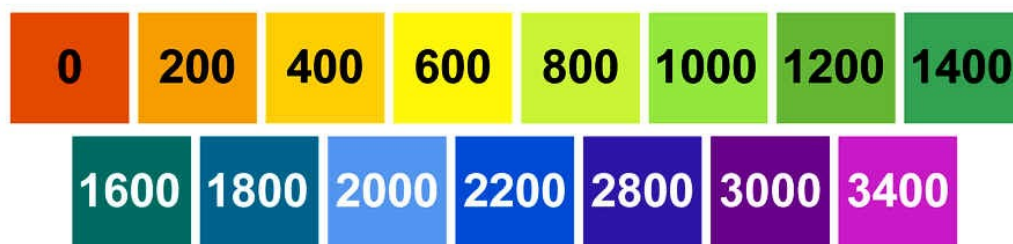
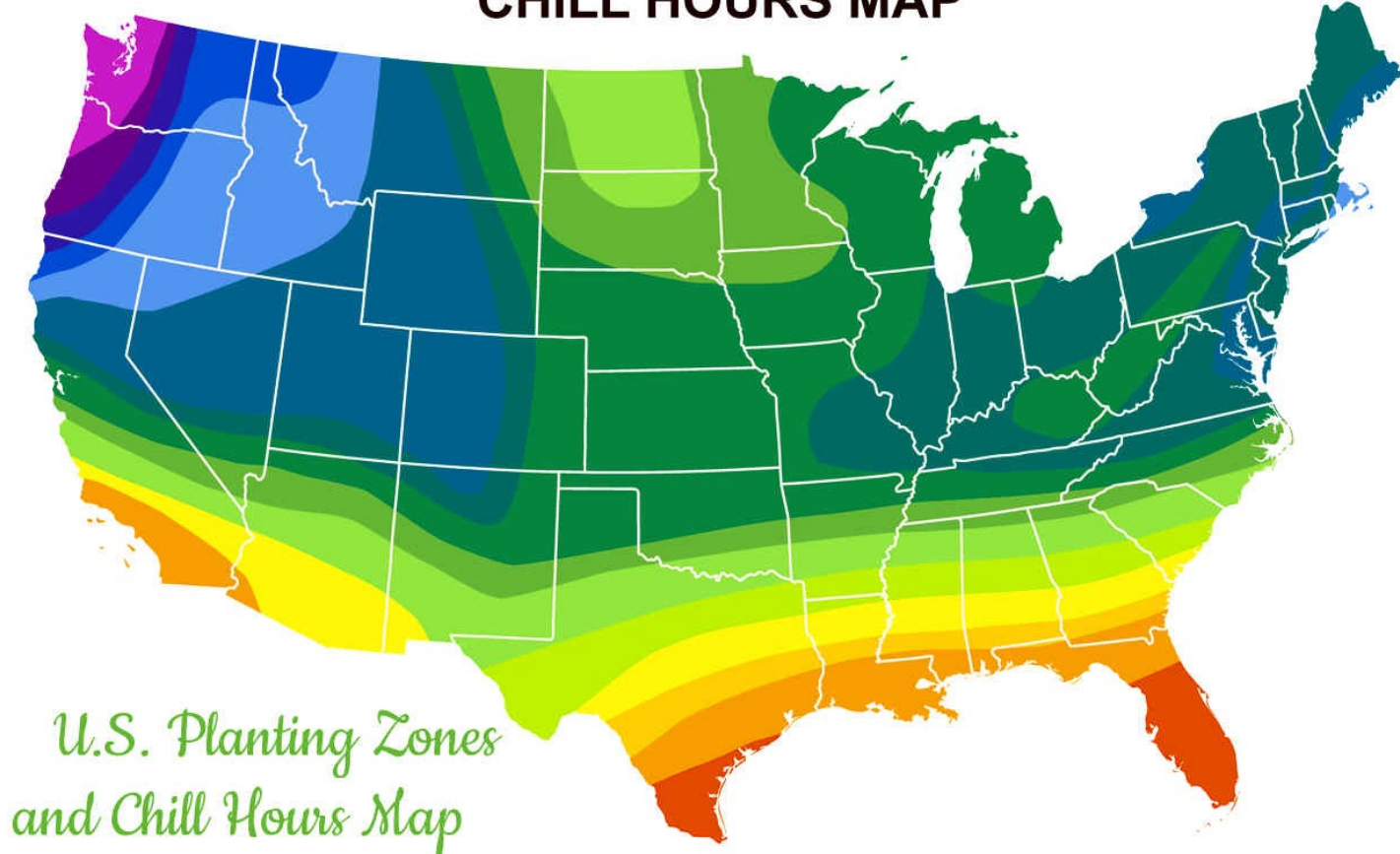


# CHILL HOURS MAP



Data provided by The University of Maryland

marysbloomers.com

Most casual gardeners I know don't have any idea that their fruit plants and trees need that chill time, and they protect or bring their trees into shelter too soon. Or they're growing in greenhouses or in pots indoors. And it makes them worry when their tree doesn't ever bear fruit. Most fruit-bearing plants need to chill and enter dormancy to produce flowers, which then become fruit.. And the gardener didn't know there *WAS* a chill hour map! Most growers do, but I think **all** plant nurseries, and especially those folks who sell their trees on ebay and such, should include the plant's chill hour information when they sell you a fruit tree. A lot of gardeners don't keep their plant tags when buying at a home center. Off comes the tag, in goes the tree. Many nursery catalogs provide this info in their plant descriptions.

#### **What Is A Chill Hour? If you're going to grow fruit, you should know this**

Find your region on the map above to find your typical chill hour requirements for your fruit shrubs and trees.

*A chill hour is equal to one hour that a fruit plant or tree spends in cooler temperatures ranging from 45 to 32 degrees Fahrenheit.* Various types of fruit plants and trees require different amounts of chill hours.

Apples, apricots, cherries, peaches, and plums have higher chill hour requirements. When choosing a fruit tree, it is important to choose a tree that can grow fruit where you live. Some fruit trees, like figs, only require 100 chill hours during the cool season. Others can require up to 1,000 chill hours. These numbers might look scary, but they're not as big as they seem in terms of 24 hrs. in a day, and the long cold fall and winter seasons in the northern states.

*As a general rule, fruit plants and trees that require higher chill hours are better suited for cooler northern climates while lower necessary chill hours are suited for warmer climates in the Southern region.*

Not all fruit plants and trees require a dormant period where they will receive a certain amount of "chill hours." But many, such as blueberry bushes and apple trees do. *If you want these fruit plants and trees to produce a large crop of fruit they will require a rest during winter, and a certain amount of cold temperatures. That's very helpful for indoor and urban orchard gardeners to know when planting fruits that might not get the appropriate chill hours to bear fruit. You can choose other varieties of fruit that do not*

*need as many chill hours.* I grow figs, and they don't require a lot of chill hours to bear their fruit.

#### **Tropical fruit plants and trees require no chill hours.**

Some fruit plants and trees form their buds for next year's crop during the late summer. In cooler climates, temperatures start to drop in fall and the plant or tree begins to enter the cool season dormant stage. During this stage the plant or tree goes dormant to protect themselves. This protects all parts of the plant, including the fruit buds that will become next year's fruit.

When spring arrives and soil and air temperatures start to warm up, the plants and trees begin to wake from dormancy. Once they do, and a plant has received its necessary chill hours, the fruit buds start to wake up and open at the proper time during spring.

#### **Too Little Or Too Many Chill Hours**

It's not an exact science, so chill hours are approximate.... If a plant doesn't get enough chill hours, it might not bloom on time, or at all, therefore producing little or no fruit. Sometimes, this can lead to a later and/or longer bloom time, which results in disease on the flowers, reduced fruit set and poor fruit quality. A dormant season with 50- 100 hours less or more won't be devastating to fruit production.

The optimum chill gathering temperature ranges from 34° to 48°F. Fruit trees can gain chill hours when the temperature is continuously between 34° and 48°F, but a tree can lose chill hours when the weather warms and the temperature rises above 48°F. If the temperature stays cold chill hours accumulate. If the weather vacillates between cold and warm, chill hours will not accumulate.

If a fruit plant or tree gets too many chill hours, it's usually not a problem. But when a low chill hour tree, which is typically more suited for warmer climates, gets too many chill hours, there is a possibility of emergence from dormancy during an early warm spell, before winter is really over. When this happens, new growth or flowers that emerge can be damaged, and a diminishing fruit production.

#### **Examples of Fruit Trees and Their Chill Requirements - This goes for dwarf varieties, too.**

'Fuji' and 'Gala' apple varieties require 900 chill hours; 'Dorset Golden' apple requires just 100 chill hours. 'Dorset Golden' can be grown in southern Florida but 'Fuji' and 'Gala' cannot—the winters are too mild.

Figs, olives, and quince have the lowest chill requirements, followed by persimmons, pomegranates, almonds, and chestnuts. Apples, apricots, cherries, peaches, and plums have higher chill hour requirements.

Different varieties of the same tree might have differing chill hour requirements. And some falls and winters might be milder or colder than others. Check with your state's extension service for more information on your specific area.

#### **Low Chill Hours Fruit Trees**

If you are unsure of the chill hours where you live, plant a tree with a low chill hours requirement.

#### **Here are some fruit trees that need fewer chill hours:**

- **Apples:** 'Dorsett Golden' (100 hours or less); 'Fuji' (200 to 400 hours); 'Pink Lady' (200 to 400 hours).
- **Apricots:** 'Autumn Glo' (500 hours); 'Flora Gold' (400 hours) 'Katy' (200 to 300).
- **Cherries:** 'Minnie Royal' (200 to 300 hours); 'Royal Lee' (200 to 300 hours).
- **Nectarines:** 'Arctic Star' (300 hours); 'Double Delight' (400 hours); 'Snow Queen' (200 to 300 hours).
- **Peaches:** 'August Pride' (300 hours); 'Donut', also called 'Saturn' (300 hours or less); 'Eva's Pride' (100 to 200 hours); 'Mid Pride' (250 hours or less); 'Red Barron' (200 to 300 hours).
- **Plums:** 'Burgundy' (150 to 300 hours); "Methley" (250 hours).

#### Sources

University of Maryland  
Wilson Bros. Nursery  
Harvest To Table

### ***Back To Mary's Bloomers Site Directory***

*Content, graphics, photos and design ©2020 marysbloomers.com  
All rights reserved*