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Understanding Climate Zones

Dennis Hinkamp
Utah State University

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GARDEN NOTES

UNDERSTANDING CLIMATE ZONES

By Dennis Hinkamp

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General-05

You can't grow an orange grove or a banana plantation in Northern Utah.

You could probably figure this out by walking outside, but for other plant choices you may need to consult a "hardiness map."

In Northern Utah the greatest factor limiting plant growth is tolerance to winter's freezing temperatures. Hardiness maps developed for the United States show the annual minimum low temperatures for all areas. The most popular of these maps is produced by the U.S. Department of Agriculture (USDA) which divides the country into 10 isothermal hardiness zones.

According to Jerry Goodspeed, Utah State University Extension horticulturist, these zones run in increments of 5 to 10 degrees. Zone 10, for example, has minimum low temperatures from 40 to 30 degree. These areas are found in southern Florida, California and Texas. Most of Northern Utah is in Zone 5, which has a minimum low temperature of -5 to -10 degrees.

"Plants are given a hardiness rating based on these zones," Goodspeed says. "This helps when selecting unfamiliar plants for the landscape. As a general rule, any plant that grows in Zone 5 or a lower numbered zone, will survive in our location. Plants rated for Zone 6 and higher, either struggle or flat out die."

He cautions that this is a only general rule, because many plants rated for Zone 6 and even a few 7's, can survive in our climate.

However, growing plants that are borderline hardy for our area can be risky, he says. An extremely cold winter can damage or destroy these landscape plants. The winter of '90-'91 had temperatures below -10 degrees, and some of our borderline plants either died, or suffered damage and died back.

"Still, a few Zone 6 plants grow in my yard and have survived for many years," Goodspeed says. "These plants usually grow in the micro-climates found in most yards. My Pieris, for example, grows on the south side under the dryer vent."

Gardeners should also take into account that the rating system is not an exacting science. It only takes minimum temperatures into consideration, he says. Temperatures are only collected

in a few locations and cannot possibly be indicative of all of Northern Utah. Many landscapes have micro-climates, or areas that are warmer than their surroundings.

“Micro-climates can be created by modifying the climate in a small area,” Goodspeed says. “For example, plants on a south facing wall receive some radiation and warmth throughout the winter from the heat reflected off the wall. This can give them a 5 to 10 degrees warmer environment than areas on the north side of the house.”

Fences, patios and other protective structures can also improve the micro-climate, he adds. Plants in low areas with no air drainage are more susceptible to colder temperatures than those on a slight incline where the colder air does not settle, but drains away from the plants.

There are other factors to consider when selecting plants for the landscape.

“Blueberry plants, rated Zone 3, struggle in our area,” Goodspeed says. “They have difficulty surviving in our soil type, not because of the cold. Some azaleas, rhododendrons and other acid loving plants suffer from the same problem.”

“Try a few new plants to see if they survive,” he says. “Experiment with the attitude that it is research, and if it fails, there is simply some vacant room to try the next research project.”

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