



REGIONAL CLIMATE VARIATIONS

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REGIONAL CLIMATE VARIATIONS

The average outdoor temperature and humidity varies from region to region. Across every region, wood floors can be installed successfully; however, all wood floors cannot be installed in the same manner in all climate zones. The regional variability of the exterior climate will affect the indoor conditions of the space.

Interior climate capabilities of the facility include type and functionality of the HVAC systems, humidification/dehumidification systems, interior and exterior insulation, and methods of construction.

Temperature and moisture (vapor) move from warmer spaces to cooler spaces; this is known as vapor drive. Building interiors are affected by two distinct seasons: heating and cooling.

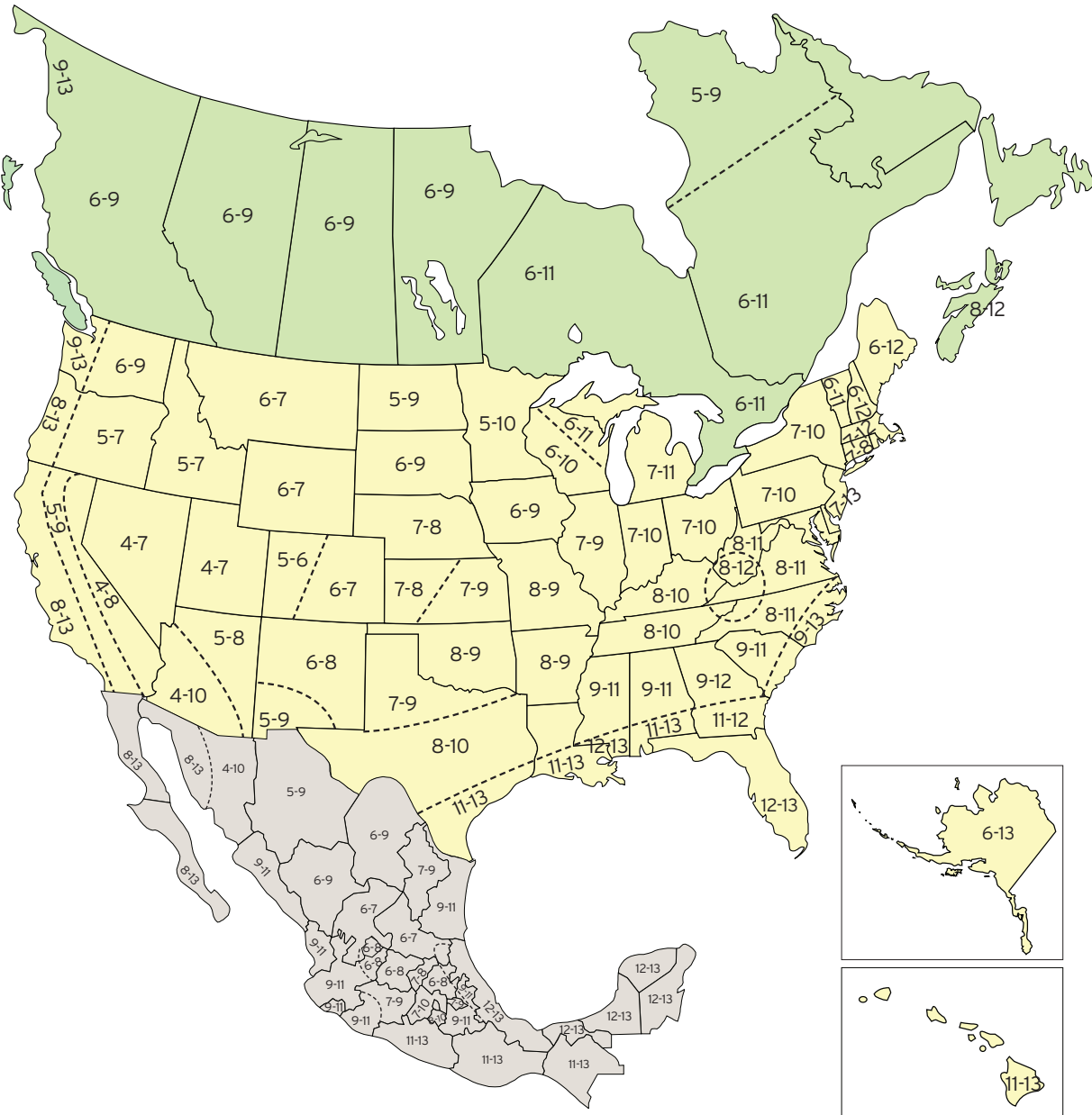


- A. In the summer, and in hot/humid climates, during the interior cooling season, vapor drive is predominately inward. Cooling systems lower the temperature of the interior air. Cooling the air decreases its ability to hold moisture and the interior relative humidity naturally increases. Fortunately, air conditioning cools the air by removing moisture through condensation.



- B. In the winter, during the interior heating season, vapor drive is predominately outward. Heating systems raise the temperature of the interior air. Heating the air will increase its ability to hold moisture; therefore, the interior relative humidity decreases.

MOISTURE MAP OF NORTH AMERICA



The numbers on the accompanying map provide examples of how average moisture contents for interior use of wood products vary from one region to another, and from one season to another within a region. Actual moisture content conditions in any location may differ significantly from these numbers.

Humidification and/or dehumidification systems may be necessary prior to, during, and after installation to maintain an environment appropriate for the flooring specified.

The USDA Forest Service suggests the following moisture content average and ranges for interior wood products:

- Most areas of the United States: average = 8% MC, ranging from 6-10% MC
- Dry southwestern regions: average = 6% MC, ranging from 4-9% MC
- Damp, warm coastal areas: average = 11% MC, ranging from 8-13% MC

Actual moisture content conditions in any location may differ significantly from these numbers.

Having a general understanding of the climate zone the wood floors are being installed in, and working with the builder and property owner to determine what is necessary for the interior finishes to perform as they are intended, will ensure a successful installation.

- A. The following climate regions are based on the climate designations used by the International Energy Conservation Code (IECC) and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). The IECC climate zone map was developed by the U.S. Department of Energy (DOE) researchers at Pacific Northwest National Laboratory with input from Building America team members, in particular, Joseph Lstiburek of Building Science Corporation. The IECC map was developed to provide a simplified, consistent approach to defining climate for implementation of various codes. It was based on widely accepted classifications of world climates that have been applied in a variety of different disciplines.
- B. The map was defined on an analysis of the 4,775 U.S. weather sites utilized by the National Oceanic and Atmospheric Administration. The U.S. Department of Energy divided the United States into eight temperature-oriented climate zones. These zones are further divided into three moisture regions designated A, B, and C. Thus, the IECC map allows for up to 24 potential climate designations.

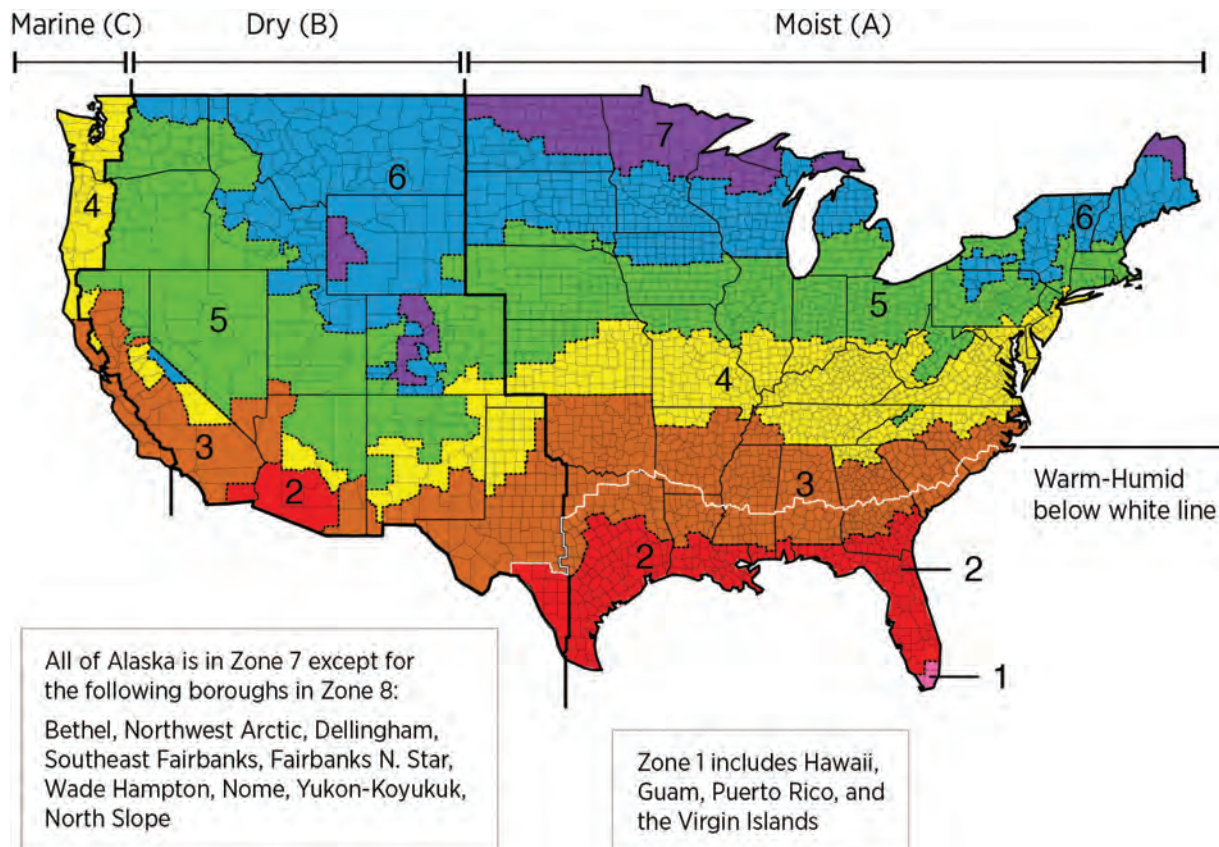
To help you determine best practices for selection of moisture control systems, installation methods, HVAC requirements, and long-term maintenance of the wood floor being put to use, refer to the climate zone listings of most major counties and cities throughout the world as listed in this publication.

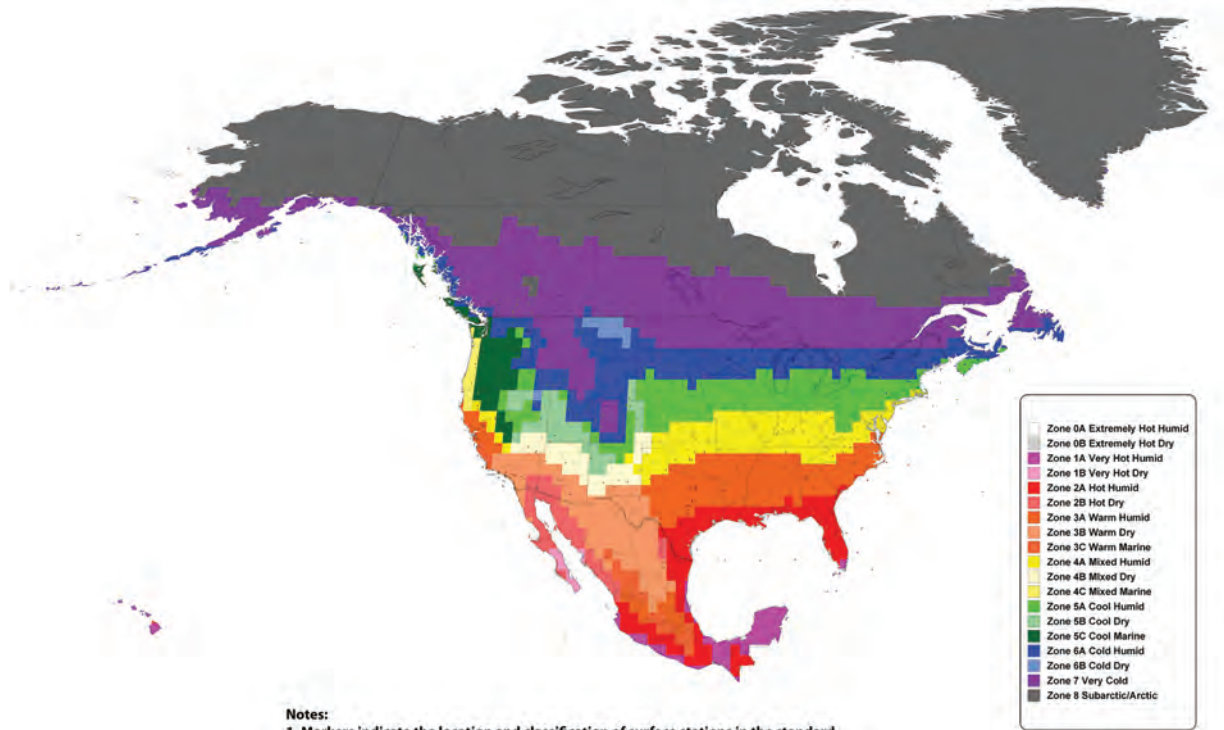
C. The climate region definitions are based on heating degree days, average temperatures, and precipitation, and are defined as follows:

1. **Hot-Humid:** This is defined as a region that receives more than 20 in. (50 cm) of annual precipitation and where one or both of the following occur:
 - a. A 67°F (19.5°C) or higher wet bulb temperature for 3,000 or more hours during the warmest 6 consecutive months of the year; or
 - b. A 73°F (23°C) or higher wet bulb temperature for 1,500 or more hours during the warmest 6 consecutive months of the year. In these regions, it is common for the interior space to be air conditioned year-round. This causes water vapor to move from the exterior toward the interior.
2. **Mixed-Humid:** A mixed-humid climate is defined as a region that receives more than 20 in. (50 cm) of annual precipitation, has approximately 5,400 heating degree days (65°F basis) or fewer, and where the average monthly outdoor temperature drops below 45°F (7°C) during the winter months.
3. **Hot-Dry:** A hot-dry climate generally is defined as a region that receives less than 20 in. (50 cm) of annual precipitation and where the monthly average outdoor temperature remains above 45°F (7°C) throughout the year.
4. **Mixed-Dry:** A mixed-dry climate is defined as a region that receives less than 20 in. (50 cm) of annual precipitation, has approximately 5,400 heating degree days (65°F basis) or less, and where the average monthly outdoor temperature drops below 45°F (7°C) during the winter months.
5. **Marine:** A marine climate generally is defined as a region that meets all of the following criteria:
 - a. A mean temperature of the coldest month between 27°F (-3°C) and 65°F (18°C).
 - b. A warmest month mean of less than 72°F (22°C).
 - c. At least 4 months with mean temperatures more than 50°F (10°C).
 - d. A dry season in summer. The month with the heaviest precipitation in the cold season has at least three times as much precipitation as the month with the least precipitation in the rest of the year. The cold season is October through March in the Northern Hemisphere and April through September in the Southern Hemisphere.

6. **Cold:** A cold climate generally is defined as a region with approximately 5,400 heating degree days (65°F basis) or more and fewer than approximately 9,000 heating degree days (65°F basis).
7. **Very Cold:** A very cold climate is generally defined as a region with approximately 9,000 heating degree days (65°F basis) or more and fewer than approximately 12,600 heating degree days (65°F basis).
8. **Subarctic/Arctic:** A subarctic climate generally is defined as a region with approximately 12,600 heating degree days (65° basis) or more.

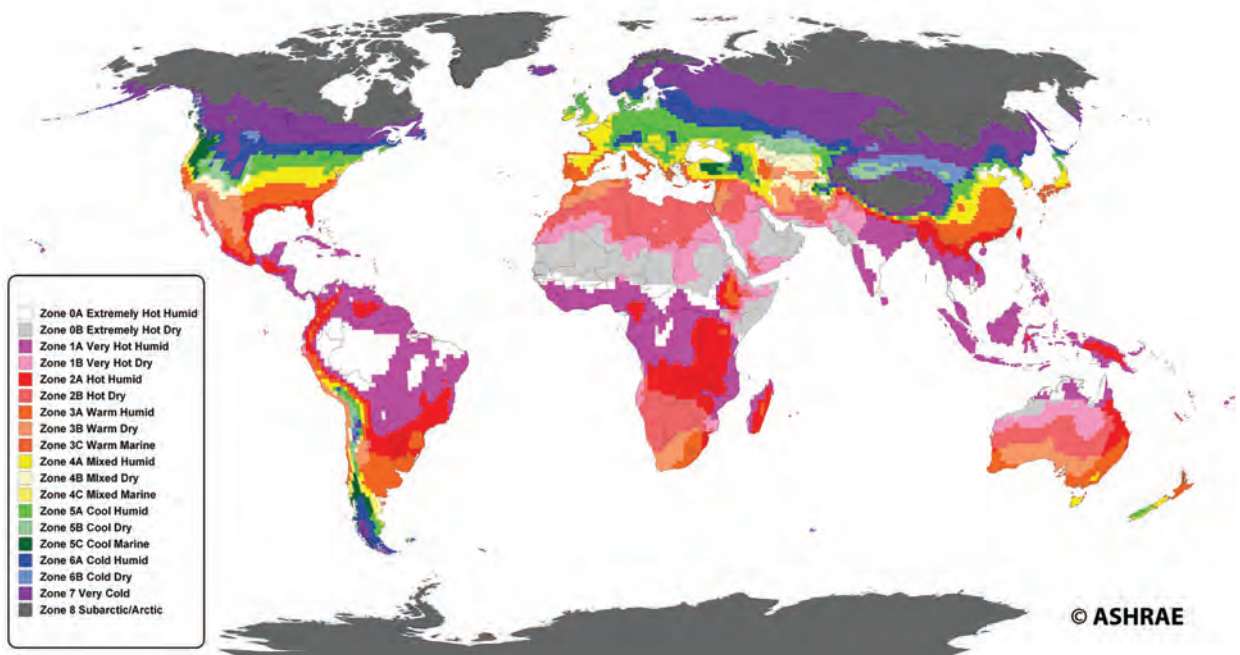
Zone Number	Zone Name
1A and 1B	Very Hot – Humid (1A) Dry (1B)
2A and 2B	Hot-Humid (2A) Dry (2B)
3A and 3B	Warm – Humid (3A) Dry (3B)
3C	Warm – Marine (3C)
4A and 4B	Mixed-Humid (4A) Dry (4B)
4C	Mixed – Marine (4C)
5A, 5B, and 5C	Cool-Humid (5A) Dry (5B) Marine (5C)
6A and 6B	Cold – Humid (6A) Dry (6B)
7	Very Cold
8	Subarctic





Notes:
 1. Markers indicate the location and classification of surface stations in the standard.
 2. Other regions are classified using remotely sensed data.
 3. Where there is a difference in classifications, the surface observation shall be deemed correct.

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CLIMATE ZONES

United States

ALABAMA							
County	Zone	County	Zone	County	Zone	County	Zone
Autauga	3A	Conecuh	3A	Houston	3A	Morgan	3A
Baldwin	2A	Coosa	3A	Jackson	3A	Perry	3A
Barbour	3A	Covington	3A	Jefferson	3A	Pickens	3A
Bibb	3A	Crenshaw	3A	Lamar	3A	Pike	3A
Blount	3A	Cullman	3A	Lauderdale	3A	Randolph	3A
Bullock	3A	Dale	3A	Lawrence	3A	Russell	3A
Butler	3A	Dallas	3A	Lee	3A	Shelby	3A
Calhoun	3A	DeKalb	3A	Limestone	3A	St. Clair	3A
Chambers	3A	Elmore	3A	Lowndes	3A	Sumter	3A
Cherokee	3A	Escambia	3A	Macon	3A	Talladega	3A
Chilton	3A	Etowah	3A	Madison	3A	Tallapoosa	3A
Choctaw	3A	Fayette	3A	Marengo	3A	Tuscaloosa	3A
Clarke	3A	Franklin	3A	Marion	3A	Walker	3A
Clay	3A	Geneva	3A	Marshall	3A	Washington	3A
Cleburne	3A	Greene	3A	Mobile	3A	Wilcox	3A
Coffee	3A	Hale	3A	Monroe	3A	Winston	3A
Colbert	3A	Henry	3A	Montgomery	3A		

ALASKA							
County	Zone	County	Zone	County	Zone	County	Zone
Aleutians East	7	Fairbanks North Star	8	Matanuska - Susitna	7	Southeast Fairbanks	8
Aleutians West	7	Haines	7	Nome	8	Valdez - Cordova	7
Anchorage	7	Juneau	7	North Slope	8	Wade Hampton	8
Bethel	8	Kenai Peninsula	7	Northwest Arctic	8	Wrangell - Petersburg	7
Bristol Bay	7	Ketchikan Gateway	7	Prince of Wales - Outer Ketchikan	7	Yakutat	7
Denali	7	Kodiak Island	7	Sitka	7	Yukon - Koyukuk	8
Dillingham	8	Lake and Peninsula	7	Skagway - Hoonah - Angoon	7		

ARIZONA							
County	Zone	County	Zone	County	Zone	County	Zone
Apache	5B	Graham	3B	Mohave	3B	Santa Cruz	3B
Cochise	3B	Greenlee	3B	Navajo	5B	Yavapai	4B
Coconino	5B	La Paz	2B	Pima	2B	Yuma	2B
Gila	4B	Maricopa	2B	Pinal	2B		

ARKANSAS							
County	Zone	County	Zone	County	Zone	County	Zone
Arkansas	3A	Dallas	3A	Lee	3A	Pope	3A
Ashley	3A	Desha	3A	Lincoln	3A	Prairie	3A
Baxter	4A	Drew	3A	Little River	3A	Pulaski	3A
Benton	4A	Faulkner	3A	Logan	3A	Randolph	3A
Boone	4A	Franklin	3A	Lonoke	3A	Saline	3A
Bradley	3A	Fulton	4A	Madison	4A	Scott	3A
Calhoun	3A	Garland	3A	Marion	4A	Searcy	4A
Carroll	4A	Grant	3A	Miller	3A	Sebastian	3A
Chicot	3A	Greene	3A	Mississippi	3A	Sevier	3A
Clark	3A	Hempstead	3A	Monroe	3A	Sharp	3A
Clay	3A	Hot Spring	3A	Montgomery	3A	St. Francis	3A
Cleburne	3A	Howard	3A	Nevada	3A	Stone	4A
Cleveland	3A	Independence	3A	Newton	4A	Union	3A
Columbia	3A	Izard	4A	Ouachita	3A	Van Buren	3A
Conway	3A	Jackson	3A	Perry	3A	Washington	4A
Craighead	3A	Jefferson	3A	Phillips	3A	White	3A
Crawford	3A	Johnson	3A	Pike	3A	Woodruff	3A
Crittenden	3A	Lafayette	3A	Poinsett	3A	Yell	3A
Cross	3A	Lawrence	3A	Polk	3A		

CALIFORNIA							
County	Zone	County	Zone	County	Zone	County	Zone
Alameda	3C	Kings	3B	Placer	3B	Sierra	5B
Alpine	6B	Lake	4B	Plumas	5B	Siskiyou	5B
Amador	4B	Lassen	5B	Riverside	3B	Solano	3B
Butte	3B	Los Angeles	3B	Sacramento	3B	Sonoma	3C
Calaveras	4B	Madera	3B	San Benito	3C	Stanislaus	3B
Colusa	3B	Marin	3C	San Bernardino	3B	Sutter	3B
Contra Costa	3B	Mariposa	4B	San Diego	3B	Tehama	3B
Del Norte	4C	Mendocino	3C	San Francisco	3C	Trinity	4B
El Dorado	4B	Merced	3B	San Joaquin	3B	Tulare	3B
Fresno	3B	Modoc	5B	San Luis Obispo	3C	Tuolumne	4B
Glenn	3B	Mono	6B	San Mateo	3C	Ventura	3C
Humboldt	4C	Monterey	3C	Santa Barbara	3C	Yolo	3B
Imperial	2B	Napa	3C	Santa Clara	3C	Yuba	3B
Inyo	4B	Nevada	5B	Santa Cruz	3C		
Kern	3B	Orange	3B	Shasta	3B		

COLORADO							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	5B	Dolores	6B	La Plata	5B	Pitkin	7
Alamosa	6B	Douglas	5B	Lake	7	Prowers	5B
Arapahoe	5B	Eagle	6B	Larimer	5B	Pueblo	5B
Archuleta	6B	El Paso	5B	Las Animas	4B	Rio Blanco	6B
Baca	4B	Elbert	5B	Lincoln	5B	Rio Grande	7
Bent	5B	Fremont	5B	Logan	5B	Routt	7
Boulder	5B	Garfield	5B	Mesa	5B	Saguache	6B
Chaffee	6B	Gilpin	5B	Mineral	7	San Juan	7
Cheyenne	5B	Grand	7	Moffat	6B	San Miguel	6B
Clear Creek	7	Gunnison	7	Montezuma	5B	Sedgwick	5B
Conejos	6B	Hinsdale	7	Montrose	5B	Summit	7
Costilla	6B	Huerfano	5B	Morgan	5B	Teller	5B
Crowley	5B	Jackson	7	Otero	4B	Washington	5B
Custer	6B	Jefferson	5B	Ouray	6B	Weld	5B
Delta	5B	Kiowa	5B	Park	7	Yuma	5B
Denver	5B	Kit Carson	5B	Phillips	5B		

CONNECTICUT	
County	Zone
All	5A

DELAWARE	
County	Zone
All	4A

DISTRICT OF COLUMBIA	
County	Zone
All	4A

FLORIDA							
County	Zone	County	Zone	County	Zone	County	Zone
Alachua	2A	Franklin	2A	Lee	2A	Pinellas	2A
Baker	2A	Gadsden	2A	Leon	2A	Polk	2A
Bay	2A	Gilchrist	2A	Levy	2A	Putnam	2A
Bradford	2A	Glades	2A	Liberty	2A	Santa Rosa	2A
Brevard	2A	Gulf	2A	Madison	2A	Sarasota	2A
Broward	1A	Hamilton	2A	Manatee	2A	Seminole	2A
Calhoun	2A	Hardee	2A	Marion	2A	St. Johns	2A
Charlotte	2A	Hendry	2A	Martin	2A	St. Lucie	2A
Citrus	2A	Hernando	2A	Miami-Dade	1A	Sumter	2A
Clay	2A	Highlands	2A	Monroe	1A	Suwannee	2A
Collier	2A	Hillsborough	2A	Nassau	2A	Taylor	2A
Columbia	2A	Holmes	2A	Okaloosa	2A	Union	2A
DeSoto	2A	Indian River	2A	Okeechobee	2A	Volusia	2A
Dixie	2A	Jackson	2A	Orange	2A	Wakulla	2A
Duval	2A	Jefferson	2A	Osceola	2A	Walton	2A
Escambia	2A	Lafayette	2A	Palm Beach	2A	Washington	2A
Flagler	2A	Lake	2A	Pasco	2A		

GEORGIA							
County	Zone	County	Zone	County	Zone	County	Zone
Appling	2A	Dade	4A	Jefferson	3A	Richmond	3A
Atkinson	2A	Dawson	4A	Jenkins	3A	Rockdale	3A
Bacon	2A	Decatur	2A	Johnson	3A	Schley	3A
Baker	2A	DeKalb	3A	Jones	3A	Screven	3A
Baldwin	3A	Dodge	3A	Lamar	3A	Seminole	2A
Banks	4A	Dooley	3A	Lanier	2A	Spalding	3A
Barrow	3A	Dougherty	3A	Laurens	3A	Stephens	4A
Bartow	3A	Douglas	3A	Lee	3A	Stewart	3A
Ben Hill	3A	Early	3A	Liberty	2A	Sumter	3A
Berrien	2A	Echols	2A	Lincoln	3A	Talbot	3A
Bibb	3A	Effingham	2A	Long	2A	Taliaferro	3A
Bleckley	3A	Elbert	3A	Lowndes	2A	Tattnall	2A
Brantley	2A	Emanuel	3A	Lumpkin	4A	Taylor	3A
Brooks	2A	Evans	2A	Macon	3A	Telfair	3A
Bryan	2A	Fannin	4A	Madison	3A	Terrell	3A
Bulloch	3A	Fayette	3A	Marion	3A	Thomas	2A
Burke	3A	Floyd	4A	McDuffie	3A	Tift	3A
Butts	3A	Forsyth	3A	McIntosh	2A	Toombs	2A
Calhoun	3A	Franklin	4A	Meriwether	3A	Towns	4A
Camden	2A	Fulton	3A	Miller	2A	Treutlen	3A
Candler	3A	Gilmer	4A	Mitchell	2A	Troup	3A
Carroll	3A	Glascok	3A	Monroe	3A	Turner	3A
Catoosa	4A	Glynn	2A	Montgomery	3A	Twiggs	3A
Charlton	2A	Gordon	4A	Morgan	3A	Union	4A
Chatham	2A	Grady	2A	Murray	4A	Upson	3A
Chattahoochee	3A	Greene	3A	Muscogee	3A	Walker	4A
Chattooga	4A	Gwinnett	3A	Newton	3A	Walton	3A
Cherokee	3A	Habersham	4A	Oconee	3A	Ware	2A
Clarke	3A	Hall	4A	Oglethorpe	3A	Warren	3A
Clay	3A	Hancock	3A	Paulding	3A	Washington	3A
Clayton	3A	Haralson	3A	Peach	3A	Wayne	2A
Clinch	2A	Harris	3A	Pickens	4A	Webster	3A
Cobb	3A	Hart	3A	Pierce	2A	Wheeler	3A
Coffee	3A	Heard	3A	Pike	3A	White	4A
Colquitt	2A	Henry	3A	Polk	3A	Whitfield	4A
Columbia	3A	Houston	3A	Pulaski	3A	Wilcox	3A
Cook	2A	Irwin	3A	Putnam	3A	Wilkes	3A
Coweta	3A	Jackson	3A	Quitman	3A	Wilkinson	3A
Crawford	3A	Jasper	3A	Rabun	4A	Worth	3A
Crisp	3A	Jeff Davis	2A	Randolph	3A		

HAWAII	
County	Zone
All	1A

IDAHO							
County	Zone	County	Zone	County	Zone	County	Zone
Ada	5B	Butte	6B	Gem	5B	Minidoka	5B
Adams	6B	Camas	6B	Gooding	5B	Nez Perce	5B
Bannock	6B	Canyon	5B	Idaho	5B	Oneida	6B
Bear Lake	6B	Caribou	6B	Jefferson	6B	Owyhee	5B
Benewah	5B	Cassia	5B	Jerome	5B	Payette	5B
Bingham	6B	Clark	6B	Kootenai	5B	Power	5B
Blaine	6B	Clearwater	5B	Latah	5B	Shoshone	5B
Boise	6B	Custer	6B	Lemhi	6B	Teton	6B
Bonner	6B	Elmore	5B	Lewis	5B	Twin Falls	5B
Bonneville	6B	Franklin	6B	Lincoln	5B	Valley	6B
Boundary	6B	Fremont	6B	Madison	6B	Washington	5B

ILLINOIS							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	5A	Ford	5A	Livingston	5A	Randolph	4A
Alexander	4A	Franklin	4A	Logan	5A	Richland	4A
Bond	4A	Fulton	5A	Macon	5A	Rock Island	5A
Boone	5A	Gallatin	4A	Macoupin	4A	Saline	4A
Brown	5A	Greene	5A	Madison	4A	Sangamon	5A
Bureau	5A	Grundy	5A	Marion	4A	Schuyler	5A
Calhoun	5A	Hamilton	4A	Marshall	5A	Scott	5A
Carroll	5A	Hancock	5A	Mason	5A	Shelby	4A
Cass	5A	Hardin	4A	Massac	4A	St. Clair	4A
Champaign	5A	Henderson	5A	McDonough	5A	Stark	5A
Christian	4A	Henry	5A	McHenry	5A	Stephenson	5A
Clark	5A	Iroquois	5A	McLean	5A	Tazewell	5A
Clay	4A	Jackson	4A	Menard	5A	Union	4A
Clinton	4A	Jasper	4A	Mercer	5A	Vermilion	5A
Coles	5A	Jefferson	4A	Monroe	4A	Wabash	4A
Cook	5A	Jersey	5A	Montgomery	4A	Warren	5A
Crawford	4A	Jo Daviess	5A	Morgan	5A	Washington	4A
Cumberland	5A	Johnson	4A	Moultrie	5A	Wayne	4A
De Witt	5A	Kane	5A	Ogle	5A	White	4A
DeKalb	5A	Kankakee	5A	Peoria	5A	Whiteside	5A
Douglas	5A	Kendall	5A	Perry	4A	Will	5A
DuPage	5A	Knox	5A	Piatt	5A	Williamson	4A
Edgar	5A	Lake	5A	Pike	5A	Winnebago	5A
Edwards	4A	LaSalle	5A	Pope	4A	Woodford	5A
Effingham	4A	Lawrence	4A	Pulaski	4A		
Fayette	4A	Lee	5A	Putnam	5A		

INDIANA							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	5A	Franklin	5A	Lawrence	4A	Rush	5A
Allen	5A	Fulton	5A	Madison	5A	St. Joseph	5A
Bartholomew	5A	Gibson	4A	Marion	5A	Scott	4A
Benton	5A	Grant	5A	Marshall	5A	Shelby	5A
Blackford	5A	Greene	4A	Martin	4A	Spencer	4A
Boone	5A	Hamilton	5A	Miami	5A	Starke	5A
Brown	4A	Hancock	5A	Monroe	4A	Steuben	5A
Carroll	5A	Harrison	4A	Montgomery	5A	Sullivan	4A
Cass	5A	Hendricks	5A	Morgan	5A	Switzerland	4A
Clark	4A	Henry	5A	Newton	5A	Tippecanoe	5A
Clay	5A	Howard	5A	Noble	5A	Tipton	5A
Clinton	5A	Huntington	5A	Ohio	4A	Union	5A
Crawford	4A	Jackson	4A	Orange	4A	Vanderburgh	4A
Daviess	4A	Jasper	5A	Owen	5A	Vermillion	5A
Dearborn	4A	Jay	5A	Parke	5A	Vigo	5A
Decatur	5A	Jefferson	4A	Perry	4A	Wabash	5A
DeKalb	5A	Jennings	4A	Pike	4A	Warren	5A
Delaware	5A	Johnson	5A	Porter	5A	Warrick	4A
Dubois	4A	Knox	4A	Posey	4A	Washington	4A
Elkhart	5A	Kosciusko	5A	Pulaski	5A	Wayne	5A
Fayette	5A	LaGrange	5A	Putnam	5A	Wells	5A
Floyd	4A	Lake	5A	Randolph	5A	White	5A
Fountain	5A	LaPorte	5A	Ripley	4A	Whitley	5A

IOWA							
County	Zone	County	Zone	County	Zone	County	Zone
Adair	5A	Davis	5A	Jefferson	5A	Pocahontas	5A
Adams	5A	Decatur	5A	Johnson	5A	Polk	5A
Allamakee	6A	Delaware	6A	Jones	5A	Pottawattamie	5A
Appanoose	5A	Des Moines	5A	Keokuk	5A	Poweshiek	5A
Audubon	5A	Dickinson	6A	Kossuth	6A	Ringgold	5A
Benton	5A	Dubuque	5A	Lee	5A	Sac	6A
Black Hawk	6A	Emmet	6A	Linn	5A	Scott	5A
Boone	5A	Fayette	6A	Louisa	5A	Shelby	5A
Bremer	6A	Floyd	6A	Lucas	5A	Sioux	6A
Buchanan	6A	Franklin	6A	Lyon	6A	Story	5A
Buena Vista	6A	Fremont	5A	Madison	5A	Tama	5A
Butler	6A	Greene	5A	Mahaska	5A	Taylor	5A
Calhoun	6A	Grundy	6A	Marion	5A	Union	5A
Carroll	5A	Guthrie	5A	Marshall	5A	Van Buren	5A
Cass	5A	Hamilton	6A	Mills	5A	Wapello	5A
Cedar	5A	Hancock	6A	Mitchell	6A	Warren	5A
Cerro Gordo	6A	Hardin	6A	Monona	5A	Washington	5A
Cherokee	6A	Harrison	5A	Monroe	5A	Wayne	5A
Chickasaw	6A	Henry	5A	Montgomery	5A	Webster	6A
Clarke	5A	Howard	6A	Muscatine	5A	Winnebago	6A
Clay	6A	Humboldt	6A	O'Brien	6A	Winneshiek	6A
Clayton	6A	Ida	6A	Osceola	6A	Woodbury	5A
Clinton	5A	Iowa	5A	Page	5A	Worth	6A
Crawford	5A	Jackson	5A	Palo Alto	6A	Wright	6A
Dallas	5A	Jasper	5A	Plymouth	6A		

KANSAS							
County	Zone	County	Zone	County	Zone	County	Zone
Allen	4A	Finney	4A	Logan	5A	Rooks	5A
Anderson	4A	Ford	4A	Lyon	4A	Rush	4A
Atchison	4A	Franklin	4A	Marion	4A	Russell	4A
Barber	4A	Geary	4A	Marshall	4A	Saline	4A
Barton	4A	Gove	5A	McPherson	4A	Scott	5A
Bourbon	4A	Graham	5A	Meade	4A	Sedgwick	4A
Brown	4A	Grant	4A	Miami	4A	Seward	4A
Butler	4A	Gray	4A	Mitchell	5A	Shawnee	4A
Chase	4A	Greeley	5A	Montgomery	4A	Sheridan	5A
Chautauqua	4A	Greenwood	4A	Morris	4A	Sherman	5A
Cherokee	4A	Hamilton	5A	Morton	4A	Smith	5A
Cheyenne	5A	Harper	4A	Nemaha	4A	Stafford	4A
Clark	4A	Harvey	4A	Neosho	4A	Stanton	4A
Clay	4A	Haskell	4A	Ness	5A	Stevens	4A
Cloud	5A	Hodgeman	4A	Norton	5A	Sumner	4A
Coffey	4A	Jackson	4A	Osage	4A	Thomas	5A
Comanche	4A	Jefferson	4A	Osborne	5A	Trego	5A
Cowley	4A	Jewell	5A	Ottawa	4A	Wabaunsee	4A
Crawford	4A	Johnson	4A	Pawnee	4A	Wallace	5A
Decatur	5A	Kearny	4A	Phillips	5A	Washington	4A
Dickinson	4A	Kingman	4A	Pottawatomie	4A	Wichita	5A
Doniphan	4A	Kiowa	4A	Pratt	4A	Wilson	4A
Douglas	4A	Labette	4A	Rawlins	5A	Woodson	4A
Edwards	4A	Lane	5A	Reno	4A	Wyandotte	4A
Elk	4A	Leavenworth	4A	Republic	5A		
Ellis	5A	Lincoln	4A	Rice	4A		
Ellsworth	4A	Linn	4A	Riley	4A		

KENTUCKY							
County	Zone	County	Zone	County	Zone	County	Zone
Adair	4A	Edmonson	4A	Knox	4A	Nicholas	4A
Allen	4A	Elliott	4A	LaRue	4A	Ohio	4A
Anderson	4A	Estill	4A	Laurel	4A	Oldham	4A
Ballard	4A	Fayette	4A	Lawrence	4A	Owen	4A
Barren	4A	Fleming	4A	Lee	4A	Owsley	4A
Bath	4A	Floyd	4A	Leslie	4A	Pendleton	4A
Bell	4A	Franklin	4A	Letcher	4A	Perry	4A
Boone	4A	Fulton	4A	Lewis	4A	Pike	4A
Bourbon	4A	Gallatin	4A	Lincoln	4A	Powell	4A
Boyd	4A	Garrard	4A	Livingston	4A	Pulaski	4A
Boyle	4A	Grant	4A	Logan	4A	Robertson	4A
Bracken	4A	Graves	4A	Lyon	4A	Rockcastle	4A
Breathitt	4A	Grayson	4A	Madison	4A	Rowan	4A
Breckinridge	4A	Green	4A	Magoffin	4A	Russell	4A
Bullitt	4A	Greenup	4A	Marion	4A	Scott	4A
Butler	4A	Hancock	4A	Marshall	4A	Shelby	4A
Caldwell	4A	Hardin	4A	Martin	4A	Simpson	4A
Calloway	4A	Harlan	4A	Mason	4A	Spencer	4A
Campbell	4A	Harrison	4A	McCracken	4A	Taylor	4A
Carlisle	4A	Hart	4A	McCreary	4A	Todd	4A
Carroll	4A	Henderson	4A	McLean	4A	Trigg	4A
Carter	4A	Henry	4A	Meade	4A	Trimble	4A
Casey	4A	Hickman	4A	Menifee	4A	Union	4A
Christian	4A	Hopkins	4A	Mercer	4A	Warren	4A
Clark	4A	Jackson	4A	Metcalfe	4A	Washington	4A
Clay	4A	Jefferson	4A	Monroe	4A	Wayne	4A
Clinton	4A	Jessamine	4A	Montgomery	4A	Webster	4A
Crittenden	4A	Johnson	4A	Morgan	4A	Whitley	4A
Cumberland	4A	Kenton	4A	Muhlenberg	4A	Wolfe	4A
Daviess	4A	Knott	4A	Nelson	4A	Woodford	4A

LOUISIANA							
County	Zone	County	Zone	County	Zone	County	Zone
Acadia	2A	East Baton Rouge	2A	Madison	3A	St. Landry	2A
Allen	2A	East Carroll	3A	Morehouse	3A	St. Martin	2A
Ascension	2A	East Feliciana	2A	Natchitoches	3A	St. Mary	2A
Assumption	2A	Evangeline	2A	Orleans	2A	St. Tammany	2A
Avoyelles	2A	Franklin	3A	Ouachita	3A	Tangipahoa	2A
Beauregard	2A	Grant	3A	Plaquemines	2A	Tensas	3A
Bienville	3A	Iberia	2A	Pointe Coupee	2A	Terrebonne	2A
Bossier	3A	Iberville	2A	Rapides	2A	Union	3A
Caddo	3A	Jackson	3A	Red River	3A	Vermilion	2A
Calcasieu	2A	Jefferson	2A	Richland	3A	Vernon	3A
Caldwell	3A	Jefferson Davis	2A	Sabine	3A	Washington	2A
Cameron	2A	Lafayette	2A	St. Bernard	2A	Webster	3A
Catahoula	3A	Lafourche	2A	St. Charles	2A	West Baton Rouge	2A
Claiborne	3A	La Salle	3A	St. Helena	2A	West Carroll	3A
Concordia	3A	Lincoln	3A	St. James	2A	West Feliciana	2A
De Soto	3A	Livingston	2A	St. John the Baptist	2A	Winn	3A

MAINE							
County	Zone	County	Zone	County	Zone	County	Zone
Androscoggin	6A	Hancock	6A	Oxford	6A	Somerset	6A
Aroostook	7	Kennebec	6A	Penobscot	6A	Waldo	6A
Cumberland	6A	Knox	6A	Piscataquis	6A	Washington	6A
Franklin	6A	Lincoln	6A	Sagadahoc	6A	York	6A

MARYLAND							
County	Zone	County	Zone	County	Zone	County	Zone
Allegany	4A	Carroll	4A	Harford	4A	Somerset	4A
Anne Arundel	4A	Cecil	4A	Howard	4A	St. Mary's	4A
Baltimore	4A	Charles	4A	Kent	4A	Talbot	4A
Baltimore City	4A	Dorchester	4A	Montgomery	4A	Washington	4A
Calvert	4A	Frederick	4A	Prince George's	4A	Wicomico	4A
Caroline	4A	Garrett	5A	Queen Anne's	4A	Worcester	4A

MASSACHUSETTS	
County	Zone
All	5A

MICHIGAN							
County	Zone	County	Zone	County	Zone	County	Zone
Alcona	6A	Dickinson	6A	Lake	6A	Oceana	6A
Alger	6A	Eaton	5A	Lapeer	5A	Ogemaw	6A
Allegan	5A	Emmet	6A	Leelanau	6A	Ontonagon	7
Alpena	6A	Genesee	5A	Lenawee	5A	Osceola	6A
Antrim	6A	Gladwin	6A	Livingston	5A	Oscoda	6A
Arenac	6A	Gogebic	7	Luce	7	Otsego	6A
Baraga	7	Grand Traverse	6A	Mackinac	7	Ottawa	5A
Barry	5A	Gratiot	5A	Macomb	5A	Presque Isle	6A
Bay	5A	Hillsdale	5A	Manistee	6A	Roscommon	6A
Benzie	6A	Houghton	7	Marquette	6A	Saginaw	5A
Berrien	5A	Huron	6A	Mason	6A	Sanilac	6A
Branch	5A	Ingham	5A	Mecosta	6A	Schoolcraft	7
Calhoun	5A	Ionia	5A	Menominee	6A	Shiawassee	5A
Cass	5A	Iosco	6A	Midland	5A	St. Clair	5A
Charlevoix	6A	Iron	7	Missaukee	6A	St. Joseph	5A
Cheboygan	6A	Isabella	6A	Monroe	5A	Tuscola	5A
Chippewa	7	Jackson	5A	Montcalm	5A	Van Buren	5A
Clare	6A	Kalamazoo	5A	Montmorency	6A	Washtenaw	5A
Clinton	5A	Kalkaska	6A	Muskegon	5A	Wayne	5A
Crawford	6A	Kent	5A	Newaygo	6A	Wexford	6A
Delta	6A	Keweenaw	7	Oakland	5A		

MINNESOTA							
County	Zone	County	Zone	County	Zone	County	Zone
Aitkin	7	Fillmore	6A	Martin	6A	Rock	6A
Anoka	6A	Freeborn	6A	McLeod	6A	Roseau	7
Becker	7	Goodhue	6A	Meeker	6A	Scott	6A
Beltrami	7	Grant	7	Mille Lacs	7	Sherburne	6A
Benton	6A	Hennepin	6A	Morrison	6A	Sibley	6A
Big Stone	6A	Houston	6A	Mower	6A	St. Louis	7
Blue Earth	6A	Hubbard	7	Murray	6A	Stearns	6A
Brown	6A	Isanti	6A	Nicollet	6A	Steele	6A
Carlton	7	Itasca	7	Nobles	6A	Stevens	6A
Carver	6A	Jackson	6A	Norman	7	Swift	6A
Cass	7	Kanabec	7	Olmsted	6A	Todd	6A
Chippewa	6A	Kandiyohi	6A	Otter Tail	7	Traverse	6A
Chisago	6A	Kittson	7	Pennington	7	Wabasha	6A
Clay	7	Koochiching	7	Pine	7	Wadena	7
Clearwater	7	Lac qui Parle	6A	Pipestone	6A	Waseca	6A
Cook	7	Lake	7	Polk	7	Washington	6A
Cottonwood	6A	Lake of the Woods	7	Pope	6A	Watonwan	6A
Crow Wing	7	Le Sueur	6A	Ramsey	6A	Wilkin	7
Dakota	6A	Lincoln	6A	Red Lake	7	Winona	6A
Dodge	6A	Lyon	6A	Redwood	6A	Wright	6A
Douglas	6A	Mahnomen	7	Renville	6A	Yellow Medicine	6A
Faribault	6A	Marshall	7	Rice	6A		

MISSISSIPPI							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	3A	Grenada	3A	Lincoln	3A	Simpson	3A
Alcorn	3A	Hancock	2A	Lowndes	3A	Smith	3A
Amite	3A	Harrison	2A	Madison	3A	Stone	2A
Attala	3A	Hinds	3A	Marion	3A	Sunflower	3A
Benton	3A	Holmes	3A	Marshall	3A	Tallahatchie	3A
Bolivar	3A	Humphreys	3A	Monroe	3A	Tate	3A
Calhoun	3A	Issaquena	3A	Montgomery	3A	Tippah	3A
Carroll	3A	Itawamba	3A	Neshoba	3A	Tishomingo	3A
Chickasaw	3A	Jackson	2A	Newton	3A	Tunica	3A
Choctaw	3A	Jasper	3A	Noxubee	3A	Union	3A
Claiborne	3A	Jefferson	3A	Oktibbeha	3A	Walthall	3A
Clarke	3A	Jefferson Davis	3A	Panola	3A	Warren	3A
Clay	3A	Jones	3A	Pearl River	2A	Washington	3A
Coahoma	3A	Kemper	3A	Perry	3A	Wayne	3A
Copiah	3A	Lafayette	3A	Pike	3A	Webster	3A
Covington	3A	Lamar	3A	Pontotoc	3A	Wilkinson	3A
DeSoto	3A	Lauderdale	3A	Prentiss	3A	Winston	3A
Forrest	3A	Lawrence	3A	Quitman	3A	Yalobusha	3A
Franklin	3A	Leake	3A	Rankin	3A	Yazoo	3A
George	3A	Lee	3A	Scott	3A		
Greene	3A	Leflore	3A	Sharkey	3A		

MISSOURI							
County	Zone	County	Zone	County	Zone	County	Zone
Adair	5A	Dallas	4A	Livingston	5A	Randolph	4A
Andrew	5A	Daviess	5A	Macon	5A	Ray	4A
Atchison	5A	DeKalb	5A	Madison	4A	Reynolds	4A
Audrain	4A	Dent	4A	Maries	4A	Ripley	4A
Barry	4A	Douglas	4A	Marion	5A	Saline	4A
Barton	4A	Dunklin	4A	McDonald	4A	Schuyler	5A
Bates	4A	Franklin	4A	Mercer	5A	Scotland	5A
Benton	4A	Gasconade	4A	Miller	4A	Scott	4A
Bollinger	4A	Gentry	5A	Mississippi	4A	Shannon	4A
Boone	4A	Greene	4A	Moniteau	4A	Shelby	5A
Buchanan	5A	Grundy	5A	Monroe	4A	St. Charles	4A
Butler	4A	Harrison	5A	Montgomery	4A	St. Clair	4A
Caldwell	5A	Henry	4A	Morgan	4A	St. Francois	4A
Callaway	4A	Hickory	4A	New Madrid	4A	St. Louis	4A
Camden	4A	Holt	5A	Newton	4A	St. Louis City	4A
Cape Girardeau	4A	Howard	4A	Nodaway	5A	Ste. Genevieve	4A
Carroll	4A	Howell	4A	Oregon	4A	Stoddard	4A
Carter	4A	Iron	4A	Osage	4A	Stone	4A
Cass	4A	Jackson	4A	Ozark	4A	Sullivan	5A
Cedar	4A	Jasper	4A	Pemiscot	4A	Taney	4A
Chariton	5A	Jefferson	4A	Perry	4A	Texas	4A
Christian	4A	Johnson	4A	Pettis	4A	Vernon	4A
Clark	5A	Knox	5A	Phelps	4A	Warren	4A
Clay	4A	Laclede	4A	Pike	5A	Washington	4A
Clinton	5A	Lafayette	4A	Platte	4A	Wayne	4A
Cole	4A	Lawrence	4A	Polk	4A	Webster	4A
Cooper	4A	Lewis	5A	Pulaski	4A	Worth	5A
Crawford	4A	Lincoln	4A	Putnam	5A	Wright	4A
Dade	4A	Linn	5A	Ralls	5A		

MONTANA	
County	Zone
All	6B

NEBRASKA	
County	Zone
All	5A

NEVADA	
County	Zone
All	5B

NEW HAMPSHIRE							
County	Zone	County	Zone	County	Zone	County	Zone
Belknap	6A	Coös	6A	Merrimack	6A	Sullivan	6A
Carroll	6A	Grafton	6A	Rockingham	5A		
Cheshire	5A	Hillsborough	5A	Strafford	5A		

NEW JERSEY							
County	Zone	County	Zone	County	Zone	County	Zone
Atlantic	4A	Essex	4A	Monmouth	4A	Sussex	5A
Bergen	5A	Gloucester	4A	Morris	5A	Union	4A
Burlington	4A	Hudson	4A	Ocean	4A	Warren	5A
Camden	4A	Hunterdon	5A	Passaic	5A		
Cape May	4A	Mercer	5A	Salem	4A		
Cumberland	4A	Middlesex	4A	Somerset	5A		

NEW MEXICO							
County	Zone	County	Zone	County	Zone	County	Zone
Bernalillo	4B	Grant	4B	Mora	5B	Sierra	4B
Catron	5B	Guadalupe	4B	Otero	3B	Socorro	4B
Chaves	3B	Harding	5B	Quay	4B	Taos	5B
Cibola	4B	Hidalgo	3B	Rio Arriba	5B	Torrance	5B
Colfax	5B	Lea	3B	Roosevelt	4B	Union	4B
Curry	4B	Lincoln	4B	San Juan	5B	Valencia	4B
De Baca	4B	Los Alamos	5B	San Miguel	5B		
Doña Ana	3B	Luna	3B	Sandoval	5B		
Eddy	3B	McKinley	5B	Santa Fe	5B		

NEW YORK							
County	Zone	County	Zone	County	Zone	County	Zone
Albany	5A	Franklin	6A	Oneida	6A	Seneca	5A
Allegany	6A	Fulton	6A	Onondaga	5A	St. Lawrence	6A
Bronx	4A	Genesee	5A	Ontario	5A	Steuben	6A
Broome	6A	Greene	5A	Orange	5A	Suffolk	4A
Cattaraugus	6A	Hamilton	6A	Orleans	5A	Sullivan	6A
Cayuga	5A	Herkimer	6A	Oswego	5A	Tioga	5A
Chautauqua	5A	Jefferson	6A	Otsego	6A	Tompkins	6A
Chemung	5A	Kings	4A	Putnam	5A	Ulster	6A
Chenango	6A	Lewis	6A	Queens	4A	Warren	6A
Clinton	6A	Livingston	5A	Rensselaer	5A	Washington	5A
Columbia	5A	Madison	6A	Richmond	4A	Wayne	5A
Cortland	5A	Monroe	5A	Rockland	5A	Westchester	4A
Delaware	6A	Montgomery	5A	Saratoga	5A	Wyoming	4A
Dutchess	5A	Nassau	4A	Schenectady	5A	Yates	5A
Erie	5A	New York	4A	Schoharie	6A		
Essex	6A	Niagara	5A	Schuyler	6A		

NORTH CAROLINA							
County	Zone	County	Zone	County	Zone	County	Zone
Alamance	4A	Cumberland	3A	Johnston	3A	Randolph	3A
Alexander	4A	Currituck	3A	Jones	3A	Richmond	A3
Alleghany	5A	Dare	3A	Lee	4A	Robeson	3A
Anson	3A	Davidson	3A	Lenoir	3A	Rockingham	4A
Ashe	5A	Davie	4A	Lincoln	4A	Rowan	3A
Avery	5A	Duplin	3A	Macon	4A	Rutherford	4A
Beaufort	3A	Durham	4A	Madison	4A	Sampson	3A
Bertie	4A	Edgecombe	3A	Martin	3A	Scotland	3A
Bladen	3A	Forsyth	4A	McDowell	4A	Stanly	3A
Brunswick	3A	Franklin	4A	Mecklenburg	3A	Stokes	4A
Buncombe	4A	Gaston	3A	Mitchell	5A	Surry	4A
Burke	4A	Gates	4A	Montgomery	3A	Swain	4A
Cabarrus	3A	Graham	4A	Moore	3A	Transylvania	4A
Caldwell	4A	Granville	4A	Nash	4A	Tyrrell	3A
Camden	3A	Greene	3A	New Hanover	3A	Union	3A
Carteret	3A	Guilford	4A	Northampton	4A	Vance	4A
Caswell	4A	Halifax	4A	Onslow	3A	Wake	4A
Catawba	4A	Harnett	4A	Orange	4A	Warren	4A
Chatham	4A	Haywood	4A	Pamlico	3A	Washington	3A
Cherokee	4A	Henderson	4A	Pasquotank	3A	Watauga	5A
Chowan	3A	Hertford	4A	Pender	3A	Wayne	3A
Clay	4A	Hoke	3A	Perquimans	3A	Wilkes	4A
Cleveland	4A	Hyde	3A	Person	4A	Wilson	3A
Columbus	3A	Iredell	4A	Pitt	3A	Yadkin	4A
Craven	3A	Jackson	4A	Polk	4A	Yancey	5A

NORTH DAKOTA							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	6A	Emmons	6A	Mercer	6A	Sioux	6A
Barnes	7	Foster	7	Morton	6A	Slope	6A
Benson	7	Golden Valley	6A	Mountrail	7	Stark	6A
Billings	6A	Grand Forks	7	Nelson	7	Steele	7
Bottineau	7	Grant	6A	Oliver	6A	Stutsman	7
Bowman	6A	Griggs	7	Pembina	7	Towner	7
Burke	7	Hettinger	6A	Pierce	7	Traill	7
Burleigh	6A	Kidder	7	Ramsey	7	Walsh	7
Cass	7	LaMoure	6A	Ransom	6A	Ward	7
Cavalier	7	Logan	6A	Renville	7	Wells	7
Dickey	6A	McHenry	7	Richland	6A	Williams	7
Divide	7	McIntosh	6A	Rolette	7		
Dunn	6A	McKenzie	6A	Sargent	6A		
Eddy	7	McLean	7	Sheridan	7		

OHIO							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	4A	Fairfield	5A	Licking	5A	Portage	5A
Allen	5A	Fayette	5A	Logan	5A	Preble	5A
Ashland	5A	Franklin	5A	Lorain	5A	Putnam	5A
Ashtabula	5A	Fulton	5A	Lucas	5A	Richland	5A
Athens	5A	Gallia	4A	Madison	5A	Ross	5A
Auglaize	5A	Geauga	5A	Mahoning	5A	Sandusky	5A
Belmont	5A	Greene	5A	Marion	5A	Scioto	4A
Brown	4A	Guernsey	5A	Medina	5A	Seneca	5A
Butler	5A	Hamilton	4A	Meigs	5A	Shelby	5A
Carroll	5A	Hancock	5A	Mercer	5A	Stark	5A
Champaign	5A	Hardin	5A	Miami	5A	Summit	5A
Clark	5A	Harrison	5A	Monroe	5A	Trumbull	5A
Clermont	4A	Henry	5A	Montgomery	5A	Tuscarawas	5A
Clinton	5A	Highland	5A	Morgan	5A	Union	5A
Columbiana	5A	Hocking	5A	Morrow	5A	Van Wert	5A
Coshocton	5A	Holmes	5A	Muskingum	5A	Vinton	5A
Crawford	5A	Huron	5A	Noble	5A	Warren	5A
Cuyahoga	5A	Jackson	5A	Ottawa	5A	Washington	4A
Darke	5A	Jefferson	5A	Paulding	5A	Wayne	5A
Defiance	5A	Knox	5A	Perry	5A	Williams	5A
Delaware	5A	Lake	5A	Pickaway	5A	Wood	5A
Erie	5A	Lawrence	4A	Pike	4A	Wyandot	5A

OKLAHOMA							
County	Zone	County	Zone	County	Zone	County	Zone
Adair	3A	Delaware	3A	Lincoln	3A	Pittsburg	3A
Alfalfa	3A	Dewey	3A	Logan	3A	Pontotoc	3A
Atoka	3A	Ellis	3A	Love	3A	Pottawatomie	3A
Beaver	4B	Garfield	3A	Major	3A	Pushmataha	3A
Beckham	3A	Garvin	3A	Marshall	3A	Roger Mills	3A
Blaine	3A	Grady	3A	Mayes	3A	Rogers	3A
Bryan	3A	Grant	3A	McClain	3A	Seminole	3A
Caddo	3A	Greer	3A	McCurtain	3A	Sequoyah	3A
Canadian	3A	Harmon	3A	McIntosh	3A	Stephens	3A
Carter	3A	Harper	3A	Murray	3A	Texas	4B
Cherokee	3A	Haskell	3A	Muskogee	3A	Tillman	3A
Choctaw	3A	Hughes	3A	Noble	3A	Tulsa	3A
Cimarron	4B	Jackson	3A	Nowata	3A	Wagoner	3A
Cleveland	3A	Jefferson	3A	Okfuskee	3A	Washington	3A
Coal	3A	Johnston	3A	Oklahoma	3A	Washita	3A
Comanche	3A	Kay	3A	Okmulgee	3A	Woods	3A
Cotton	3A	Kingfisher	3A	Osage	3A	Woodward	3A
Craig	3A	Kiowa	3A	Ottawa	3A		
Creek	3A	Latimer	3A	Pawnee	3A		
Custer	3A	Le Flore	3A	Payne	3A		

OREGON							
County	Zone	County	Zone	County	Zone	County	Zone
Baker	5B	Douglas	4C	Lake	5B	Sherman	5B
Benton	4C	Gilliam	5B	Lane	4C	Tillamook	4C
Clackamas	4C	Grant	5B	Lincoln	4C	Umatilla	5B
Clatsop	4C	Harney	5B	Linn	4C	Union	5B
Columbia	4C	Hood River	5B	Malheur	5B	Wallowa	5B
Coos	4C	Jackson	4C	Marion	4C	Wasco	5B
Crook	5B	Jefferson	5B	Morrow	5B	Washington	4C
Curry	4C	Josephine	4C	Multnomah	4C	Wheeler	5B
Deschutes	5B	Klamath	5B	Polk	4C	Yamhill	4C

PENNSYLVANIA							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	5A	Clinton	5A	Lackawanna	5A	Pike	5A
Allegheny	5A	Columbia	5A	Lancaster	5A	Potter	6A
Armstrong	5A	Crawford	5A	Lawrence	5A	Schuylkill	5A
Beaver	5A	Cumberland	5A	Lebanon	5A	Snyder	5A
Bedford	5A	Dauphin	5A	Lehigh	5A	Somerset	5A
Berks	5A	Delaware	4A	Luzerne	5A	Sullivan	5A
Blair	5A	Elk	6A	Lycoming	5A	Susquehanna	6A
Bradford	5A	Erie	5A	McKean	6A	Tioga	6A
Bucks	4A	Fayette	5A	Mercer	5A	Union	5A
Butler	5A	Forest	5A	Mifflin	5A	Venango	5A
Cambria	5A	Franklin	5A	Monroe	5A	Warren	5A
Cameron	6A	Fulton	5A	Montgomery	4A	Washington	5A
Carbon	5A	Greene	5A	Montour	5A	Wayne	6A
Centre	5A	Huntingdon	5A	Northampton	5A	Westmoreland	5A
Chester	4A	Indiana	5A	Northumberland	5A	Wyoming	5A
Clarion	5A	Jefferson	5A	Perry	5A	York	4A
Clearfield	6A	Juniata	5A	Philadelphia	4A		

RHODE ISLAND	
County	Zone
All	5A

SOUTH CAROLINA	
County	Zone
All	3A

SOUTH DAKOTA							
County	Zone	County	Zone	County	Zone	County	Zone
Aurora	6A	Day	6A	Jackson	5A	Pennington	6A
Beadle	6A	Deuel	6A	Jerauld	6A	Perkins	6A
Bennett	5A	Dewey	6A	Jones	6A	Potter	6A
Bon Homme	5A	Douglas	5A	Kingsbury	6A	Roberts	6A
Brookings	6A	Edmunds	6A	Lake	6A	Sanborn	6A
Brown	6A	Fall River	6A	Lawrence	6A	Spink	6A
Brule	6A	Faulk	6A	Lincoln	6A	Stanley	6A
Buffalo	6A	Grant	6A	Lyman	6A	Sully	6A
Butte	6A	Gregory	5A	Marshall	6A	Todd	5A
Campbell	6A	Haakon	6A	McCook	6A	Tripp	5A
Charles Mix	5A	Hamlin	6A	McPherson	6A	Turner	6A
Clark	6A	Hand	6A	Meade	6A	Union	5A
Clay	5A	Hanson	6A	Mellette	5A	Walworth	6A
Codington	6A	Harding	6A	Miner	6A	Yankton	5A
Corson	6A	Hughes	6A	Minnehaha	6A	Ziebach	6A
Custer	6A	Hutchinson	5A	Moody	6A		
Davison	6A	Hyde	6A	Oglala Lakota	6A		

TENNESSEE								
County	Zone	County	Zone	County	Zone	County	Zone	
Anderson	4A	Fentress	4A	Lauderdale	3A	Roane	4A	
Bedford	4A	Franklin	4A	Lawrence	4A	Robertson	4A	
Benton	4A	Gibson	4A	Lewis	4A	Rutherford	4A	
Bledsoe	4A	Giles	4A	Lincoln	4A	Scott	4A	
Blount	4A	Grainger	4A	Loudon	4A	Sequatchie	4A	
Bradley	4A	Greene	4A	Macon	4A	Sevier	4A	
Campbell	4A	Grundy	4A	Madison	3A	Shelby	3A	
Cannon	4A	Hamblen	4A	Marion	4A	Smith	4A	
Carroll	4A	Hamilton	4A	Marshall	4A	Stewart	4A	
Carter	4A	Hancock	4A	Mauzy	4A	Sullivan	4A	
Cheatham	4A	Hardeman	3A	McMinn	4A	Sumner	4A	
Chester	3A	Hardin	3A	McNairy	3A	Tipton	3A	
Claiborne	4A	Hawkins	4A	Meigs	4A	Trousdale	4A	
Clay	4A	Haywood	3A	Monroe	4A	Unicoi	4A	
Cocke	4A	Henderson	3A	Montgomery	4A	Union	4A	
Coffee	4A	Henry	4A	Moore	4A	Van Buren	4A	
Crockett	3A	Hickman	4A	Morgan	4A	Warren	4A	
Cumberland	4A	Houston	4A	Obion	4A	Washington	4A	
Davidson	4A	Humphreys	4A	Overton	4A	Wayne	4A	
Decatur	4A	Jackson	4A	Perry	4A	Weakley	4A	
DeKalb	4A	Jefferson	4A	Pickett	4A	White	4A	
Dickson	4A	Johnson	4A	Polk	4A	Williamson	4A	
Dyer	3A	Knox	4A	Putnam	4A	Wilson	4A	
Fayette	3A	Lake	3A	Rhea	4A			

TEXAS							
County	Zone	County	Zone	County	Zone	County	Zone
Anderson	2A	Coke	3B	Freestone	2A	Jasper	2A
Andrews	3B	Coleman	3B	Frio	2A	Jeff Davis	3B
Angelina	2A	Collin	3A	Gaines	3B	Jefferson	2A
Aransas	2A	Collingsworth	3B	Galveston	2A	Jim Hogg	2A
Archer	3A	Colorado	2A	Garza	3B	Jim Wells	2A
Armstrong	4B	Comal	2A	Gillespie	3A	Johnson	3A
Atascosa	2A	Comanche	3A	Glasscock	3B	Jones	3B
Austin	2A	Concho	3B	Goliad	2A	Karnes	2A
Bailey	4B	Cooke	3A	Gonzales	2A	Kaufman	3A
Bandera	2B	Coryell	2A	Gray	4B	Kendall	3A
Bastrop	2A	Cottle	3B	Grayson	3A	Kenedy	2A
Baylor	3B	Crane	3B	Gregg	3A	Kent	3B
Bee	2A	Crockett	3B	Grimes	2A	Kerr	3B
Bell	2A	Crosby	3B	Guadalupe	2A	Kimble	3B
Bexar	2A	Culberson	3B	Hale	4B	King	3B
Blanco	3A	Dallam	4B	Hall	3B	Kinney	2B
Borden	3B	Dallas	3A	Hamilton	3A	Kleberg	2A
Bosque	2A	Dawson	3B	Hansford	4B	Knox	3B
Bowie	3A	Deaf Smith	4B	Hardeman	3B	La Salle	2B
Brazoria	2A	Delta	3A	Hardin	2A	Lamar	3A
Brazos	2A	Denton	3A	Harris	2A	Lamb	4B
Brewster	3B	DeWitt	2A	Harrison	3A	Lampasas	3A
Briscoe	4B	Dickens	3B	Hartley	4B	Lavaca	2A
Brooks	2A	Dimmit	2A	Haskell	3B	Lee	2A
Brown	3A	Donley	4B	Hays	2A	Leon	2A
Burleson	2A	Duval	2A	Hemphill	3B	Liberty	2A
Burnet	3A	Eastland	3A	Henderson	3A	Limestone	2A
Caldwell	2A	Ector	3B	Hidalgo	2A	Lipscomb	4B
Calhoun	2A	Edwards	2A	Hill	2A	Live Oak	2A
Callahan	3B	El Paso	3B	Hockley	4B	Llano	3A
Cameron	2A	Ellis	3A	Hood	3A	Loving	3B
Camp	3A	Erath	3A	Hopkins	3A	Lubbock	3B
Carson	4B	Falls	2A	Houston	2A	Lynn	3B
Cass	3A	Fannin	3A	Howard	3B	Madison	2A
Castro	4B	Fayette	2A	Hudspeth	3B	Marion	3A
Chambers	2A	Fisher	3B	Hunt	3A	Martin	3B
Cherokee	2A	Floyd	4B	Hutchinson	4B	Mason	3B
Childress	3B	Foard	3B	Irion	3B	Matagorda	2A
Clay	3A	Fort Bend	2A	Jack	3A	Maverick	2B
Cochran	4B	Franklin	3A	Jackson	2A	McCulloch	3B

TEXAS							
County	Zone	County	Zone	County	Zone	County	Zone
McLennan	2A	Navarro	3A	Presidio	4B	Wichita	3A
McMullen	2A	Newton	2A	Rains	3A	Wilbarger	3B
Medina	2B	Nolan	3B	Randall	4B	Willacy	2A
Menard	3B	Nueces	2A	Reagan	3B	Williamson	2A
Midland	3B	Ochiltree	4B	Val Verde	2B	Wilson	2A
Milam	2A	Oldham	4B	Van Zandt	3A	Winkler	3B
Mills	3A	Orange	2A	Victoria	2A	Wise	3A
Mitchell	3B	Palo Pinto	3A	Walker	2A	Wood	3A
Montague	3C	Panola	3A	Waller	2A	Yoakum	4B
Montgomery	2A	Parker	3A	Ward	3B	Young	3A
Moore	4B	Parmer	4B	Washington	2A	Zapata	2B
Morris	3A	Pecos	3B	Webb	2B	Zavala	2B
Motley	3B	Polk	2A	Wharton	2A		
Nacogdoches	3A	Potter	4B	Wheeler	3B		

UTAH							
County	Zone	County	Zone	County	Zone	County	Zone
Beaver	5B	Garfield	5B	Rich	6B	Utah	5B
Box Elder	6B	Grand	5B	Salt Lake	5B	Wasatch	6B
Cache	6B	Iron	5B	San Juan	5B	Washington	3B
Carbon	6B	Juab	5B	Sanpete	5B	Wayne	5B
Daggett	6B	Kane	5B	Sevier	5B	Weber	5B
Davis	5B	Millard	5B	Summit	6B		
Duchesne	6B	Morgan	6B	Tooele	5B		
Emery	5B	Piute	5B	Uintah	6B		

VERMONT	
County	Zone
All	6A

VIRGINIA	
County	Zone
All	4A

WASHINGTON							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	5B	Franklin	5B	Lewis	4C	Snohomish	4C
Asotin	5B	Garfield	5B	Lincoln	5B	Spokane	5B
Benton	5B	Grant	5B	Mason	4C	Stevens	6B
Chelan	5B	Grays Harbor	4C	Okanogan	6B	Thurston	4C
Clallam	4C	Island	4C	Pacific	4C	Wahkiakum	4C
Clark	4C	Jefferson	4C	Pend Oreille	6B	Walla Walla	5B
Columbia	5B	King	4C	Pierce	4C	Whatcom	4C
Cowlitz	4C	Kitsap	4C	San Juan	4C	Whitman	5B
Douglas	5B	Kittitas	5B	Skagit	4C	Yakima	5B
Ferry	4C	Klickitat	5B	Skamania	5B		

WEST VIRGINIA							
County	Zone	County	Zone	County	Zone	County	Zone
Barbour	5A	Hancock	5A	Mineral	5A	Ritchie	4A
Berkeley	4A	Hardy	5A	Mingo	4A	Roane	4A
Boone	4A	Harrison	5A	Monongalia	5A	Summers	5A
Braxton	4A	Jackson	4A	Monroe	4A	Taylor	5A
Brooke	5A	Jefferson	4A	Morgan	4A	Tucker	5A
Cabell	4A	Kanawha	4A	Nicholas	5A	Tyler	4A
Calhoun	4A	Lewis	5A	Ohio	5A	Upshur	5A
Clay	4A	Lincoln	4A	Pendleton	5A	Wayne	4A
Doddridge	5A	Logan	4A	Pleasants	4A	Webster	5A
Fayette	5A	Marion	5A	Pocahontas	5A	Wetzel	5A
Gilmer	4A	Marshall	5A	Preston	5A	Wirt	4A
Grant	5A	Mason	4A	Putnam	4A	Wood	4A
Greenbrier	5A	McDowell	4A	Raleigh	5A	Wyoming	4A
Hampshire	5A	Mercer	4A	Randolph	5A		

WISCONSIN							
County	Zone	County	Zone	County	Zone	County	Zone
Adams	6A	Florence	7	Marathon	6A	Rusk	6A
Ashland	7	Fond du Lac	6A	Marinette	6A	Sauk	6A
Barron	6A	Forest	7	Marquette	6A	Sawyer	7
Bayfield	7	Grant	6A	Menominee	6A	Shawano	6A
Brown	6A	Green	6A	Milwaukee	6A	Sheboygan	6A
Buffalo	6A	Green Lake	6A	Monroe	6A	St. Croix	6A
Burnett	7	Iowa	6A	Oconto	6A	Taylor	7
Calumet	6A	Iron	7	Oneida	7	Trempealeau	6A
Chippewa	6A	Jackson	6A	Outagamie	6A	Vernon	6A
Clark	6A	Jefferson	6A	Ozaukee	6A	Vilas	7
Columbia	6A	Juneau	6A	Pepin	6A	Walworth	6A
Crawford	6A	Kenosha	6A	Pierce	6A	Washburn	7
Dane	6A	Kewaunee	6A	Polk	6A	Washington	6A
Dodge	6A	La Crosse	6A	Portage	6A	Waukesha	6A
Door	6A	Lafayette	6A	Price	7	Waupaca	6A
Douglas	7	Langlade	7	Racine	6A	Waushara	6A
Dunn	6A	Lincoln	7	Richland	6A	Winnebago	6A
Eau Claire	6A	Manitowoc	6A	Rock	6A	Wood	6A

WYOMING							
County	Zone	County	Zone	County	Zone	County	Zone
Albany	6B	Fremont	6B	Natrona	6B	Sweetwater	6B
Big Horn	6B	Goshen	5B	Niobrara	6B	Teton	7
Campbell	6B	Hot Springs	6B	Park	6B	Uinta	6B
Carbon	6B	Johnson	6B	Platte	5B	Washakie	6B
Converse	6B	Laramie	6B	Sheridan	6B	Weston	6B
Crook	6B	Lincoln	7	Sublette	7		

United States Territories

AMERICAN SAMOA	
County	Zone
All	1A

GUAM	
County	Zone
All	1A

NORTHERN MARIANA ISLANDS	
County	Zone
All	1A

PUERTO RICO	
County	Zone
All	1A

VIRGIN ISLANDS	
County	Zone
All	1A

Canada

ALBERTA							
City	Zone	City	Zone	City	Zone	City	Zone
Calgary International A	7	Grande Prairie A	7	Lethbridge A	6	Red Deer A	7
Edmonton International A	7	Jasper	7	Medicine Hat A	6		

BRITISH COLUMBIA							
City	Zone	City	Zone	City	Zone	City	Zone
Dawson Creek A	7	Nanaimo A	5	Prince George	7	Victoria Gonzales Hts	5
Ft Nelson A	8	New Westminster BC Pen	5	Prince Rupert A	6		
Kamloops	5	Penticton A	5	Vancouver International A	5		

MANITOBA							
City	Zone	City	Zone	City	Zone	City	Zone
Brandon CDA	7	Dauphin A	7	Portage La Prairie A	7	Winnipeg International A	7
Churchill A	9	Flin Flon	7	The Pas A	7		

NEW BRUNSWICK							
City	Zone	City	Zone	City	Zone	City	Zone
Chatham A	7	Fredericton A	6	Moncton A	6	Saint John A	6

NEWFOUNDLAND					
City	Zone	City	Zone	City	Zone
Corner Brook	6	Goose A	7	Stephenville A	6
Gander International A	7	St. John's A	6		

NORTHWEST TERRITORIES					
City	Zone	City	Zone	City	Zone
Ft. Smith A	8	Inuvik A	8	Yellowknife A	8

NOVA SCOTIA					
City	Zone	City	Zone	City	Zone
Halifax International A	6	Sydney A	6	Yarmouth A	6
Kentville CDA	6	Truro	6		

NUNAVUT	
City	Zone
Resolute A	8

ONTARIO							
City	Zone	City	Zone	City	Zone	City	Zone
Belleville	6	Kingston A	6	Owen Sound MOE	6	Timmins A	7
Cornwall	6	London A	6	Petersborough	6	Toronto Downsview A	6
Hamilton RBG	5	North Bay A	7	St Catharines	5	Windsor A	5
Kapuskasing A	7	Oshawa WPCP	6	Sudbury A	7		
Kenora A	7	Ottawa International A	6	Thunder Bay A	7		

PRINCE EDWARD			
City	Zone	City	Zone
Charlottetown A	6	Summerside A	6

QUEBEC							
City	Zone	City	Zone	City	Zone	City	Zone
Bagotville A	7	Quebec A	7	Sherbrooke A	7	Trois Rivières	7
Drummondville	6	Rimouski	7	St Jean de Chébourg	7	Val d'Or A	7
Granby	6	Sept-les A	7	St Jerome	7	Valleyfield	6
Montreal Dorval Int'l A	6	Shawinigan	7	Thetford Mines	7		

SASKATCHEWAN					
City	Zone	City	Zone	City	Zone
Estevan A	7	Prince Albert A	7	Swift Current A	7
Moose Jaw A	7	Regina A	7	Yorkton A	7
North Battleford A	7	Saskatoon A	7	Whitehorse A	8

International

ARGENTINA

City	Zone	City	Zone	City	Zone
Buenos Aires/Ezeiza	3	Cordoba	3	Tucuman/Pozo	2

AUSTRALIA

City	Zone	City	Zone	City	Zone
Adelaide (SA)	4	Brisbane (AL)	2	Perth/Guildford (WA)	3
Alice Springs (NT)	3	Darwin Airport (NT)	1	Sydney/KSmith (NSW)	3

AZORES (TERCEIRA)

City	Zone
Lajes	3

BAHAMAS

City	Zone
Nassau	1

BELGIUM

City	Zone
Brussels Airport	5

BERMUDA

City	Zone
St George/Kindley	2

BOLIVIA

City	Zone
La Paz/El Alto	5

BRAZIL

City	Zone	City	Zone	City	Zone	City	Zone
Belem	1	Fortaleza	1	Recife/Curado	1	Salvador/Ondina	1
Brasilia	2	Porto Alegre	2	Rio de Janeiro	1	Sao Paulo	2

BULGARIA

City	Zone
Sofia	5

CHILE

City	Zone	City	Zone	City	Zone
Concepcion	4	Punta Arenas/Chabunco	6	Santiago/Pedahuel	4

CHINA

City	Zone
Shanghai	3

CUBA

City	Zone
Guantanamo Bay NAS (Ote)	1

CYPRUS					
City	Zone	City	Zone	City	Zone
Akrotiri	3	Larnaca	3	Paphos	3

CZECH REPUBLIC	
City	Zone
Prague/Libus	

DOMINICAN REPUBLIC	
City	Zone
Santo Domingo	

EGYPT			
City	Zone	City	Zone
Cairo		Luxor	

FINLAND	
City	Zone
Santo Domingo	

FRANCE					
City	Zone	City	Zone	City	Zone
Lyon/Satolas	4	Nantes	4	Paris/Le Bourget	4
Marseille	4	Nice	4	Strasbourg	5

GERMANY			
City	Zone	City	Zone
Berlin/Schoenfeld	5	Hannover	5
Hamburg	5	Mannheim	5

GREECE			
City	Zone	City	Zone
Souda (Crete)	3	Thessalonika/Mikra	4

GREENLAND	
City	Zone
Narssarssuaq	7

HUNGARY	
City	Zone
Budapest/Lorinc	5

ICELAND	
City	Zone
Reykjavik	7

INDIA							
City	Zone	City	Zone	City	Zone	City	Zone
Ahmedabad	1	Bombay/Santa Bruz	1	Madras	1	New Delhi/Safdarjung	1
Bangalore	1	Calcutta/Dum Dum	1	Nagpur Sonegaon	1		

INDONESIA					
City	Zone	City	Zone	City	Zone
Djakarta/Halimperda Jav(a)	1	Makassar (Celebes)	1	Palembang (Sumatra)	1
Kupang Penfui (Sunda Island)	1	Medan (Sumatra)	1	Surabaga Perak (Java)	1

IRELAND			
City	Zone	City	Zone
Dublin Airport	5	Shannon Airport	4

ISRAEL			
City	Zone	City	Zone
Jerusalem	3	Tel Aviv Port	2

ITALY					
City	Zone	City	Zone	City	Zone
Milano/Linate	4	Napoli/Capodichino	4	Roma/Fiumicion	4

JAMAICA			
City	Zone	City	Zone
Kingston/Manley	1	Montego Bay/Sangster	1

JAPAN					
City	Zone	City	Zone	City	Zone
Fukaura	5	Sapporo	5	Tokyo	3

JORDAN	
City	Zone
Amman	3

KENYA	
City	Zone
Nairobi Airport	3

KOREA			
City	Zone	City	Zone
Pyongyang	5	Seoul	4

MALAYSIA			
City	Zone	City	Zone
Kuala Lumpur	1	Penang/Bayan Lepas	1

MEXICO					
City	Zone	City	Zone	City	Zone
Mexico City (Distrito Federal)	3	Guadalajara (Jalisco)	1	Monterrey (Nuevo Laredo)	3

NETHERLANDS	
City	Zone
Amsterdam/Schiphol	5

NEW ZEALAND					
City	Zone	City	Zone	City	Zone
Auckland Airport		Christchurch		Wellington	

NORWAY			
City	Zone	City	Zone
Bergen/Florida	5	Oslo/Fornebu	6

PAKISTAN	
City	Zone
Karachi Airport	1

PAPUA NEW GUINEA	
City	Zone
Port Moersby	1

PARAGUAY	
City	Zone
Asuncion/Stroessner	1

PERU					
City	Zone	City	Zone	City	Zone
LimaCallo/Chavez	2	San Juan de Marcona	2	Talara	2

PHILIPPINES	
City	Zone
Manila Airport (Luzon)	1

POLAND	
City	Zone
Krakow/Balice	5

ROMANIA	
City	Zone
Bucuresti/Bancasa	5

RUSSIA							
City	Zone	City	Zone	City	Zone	City	Zone
Kaliningrad (E. Prussia)	5	Moscow Observatory	6	RostovNaDonu	5	Volgograd	6
Krasnoiarsk	7	Petropavlovsk	7	Vladivostok	6		

SAUDI ARABIA			
City	Zone	City	Zone
Dhahran	1	Riyadh	1

SENEGAL	
City	Zone
Kakar/Yoff	1

SINGAPORE	
City	Zone
Singapore/Changi	1

SOUTH AFRICA					
City	Zone	City	Zone	City	Zone
Cape Town/D F Malan	4	Johannesburg	4	Pretoria	2

SPAIN					
City	Zone	City	Zone	City	Zone
Barcelona	4	Madrid	4	Valencia/Manises	3

SWEDEN	
City	Zone
Stockholm/Arlanda	6

SWITZERLAND	
City	Zone
Zurich	5

SYRIA	
City	Zone
Damascus Airport	3

TAIWAN			
City	Zone	City	Zone
Tainan	1	Taipei	2

TANZANIA	
City	Zone
Dares Salaam	1

TUNISIA	
City	Zone
Tunis/El Auoina	3

TURKEY					
City	Zone	City	Zone	City	Zone
Adana	3	Ankara/Etimesgut	4	Istanbul/Yesilkoy	4

UNITED KINGDOM			
City	Zone	City	Zone
Birmingham (England)	5	Glasgow Airport (Scotland)	5
Edinburgh (Scotland)	5	London/Heathrow (England)	4

URUGUAY	
City	Zone
Montevideo/Carrasco	3

VENEZUELA	
City	Zone
Caracas/Maiquetia	1

VIETNAM			
City	Zone	City	Zone
Hanoi/Gialam	1	Saigon (Ho Chi Minh)	1

SOURCES AND CREDITS

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- Joe Audino, Rode Brothers
- Kevin Mullany, Benchmark Wood Floors
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- U.S. Department of Energy, Energy Efficiency and Renewable Energy; PNNL-17211 Rev. 3 August 2015
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