

Steps to Getting Started Follow these 5 simple steps to complete your phenological investigation! www.budburst.org

- **1.** Select and identify your plant.
- **2.** Describe the site where your plant is located.
- **3.** Determine the phenophases you are looking for.
- **4.** Begin observations (before expected time of leafing or flowering).
- 5. Report your observations online!

Step 1. Your first task is to select a

plant from the Project BudBurst plant list (www.budburst.org/plantlist.php) that is likely to be found in your neighborhood. Choose a plant that you can easily observe on a daily basis. Plants that are in your backyard, schoolyard, workplace, or neighborhood will work best for daily observations. If your plant is one of many in the area, you may want to use a temporary marker such as plastic tape or stake to mark your plant for easy identification.

Note: If you do not have access to a plant that is on the Project BudBurst plant list, you may choose to observe any other plant species that is accessible.

Use the Plant Identification Guide (www.budburst.org/resources.php) to help you identify your plant at least a week or two before the phenophase actually happens. Of course, if we knew exactly when that time was, there would be no need to begin regular observations! To make the best educated estimate of the general timeframe for your plant, consult the Plant Identification Guide. **Step 2.** Once you have selected your plant and are ready to begin monitoring, take a few moments to **describe the site** where your plant is growing. You will need to know the geographic coordinates for your site - the latitude and longitude (Lat/Lon). Here are some suggestions for finding these coordinates:

- Enter a street address or city/state location in the Project BudBurst Geocoder on the Website.
- A GPS unit report as many decimal places as the unit provides.
- Topographic map.

You will need to take notes about the site. Look around and describe what you see. Is your plant near a building? Is it on a slope? And if so, facing Nouth or South? Is it on a flat field? Does it receive regular watering or irrigation? Are there other plants near your plant? If yes, what kind? What else can you note about your site?

Register online to save your observation sites and plants that you are monitoring throughout this growing season and for coming years! (www.budburst.org)



Step 3. Determine the

phenophases of interest for your selected plant by visiting the Participate! section of the Website (www.budburst.org/participate.php). The ultimate goal of Project BudBurst is to observe the first day of the appropriate phenophase for your plant (e.g. First Flower). There are eight basic phenophases:

| First Leaf | All Leaves Unfolded | First Flower | Full Flower |
|------------|------------------------|--------------|-------------|
| End of | First Ripe | 50% Color | 50% Leaf |
| Flowering | Fruit | | Fall |

The Project BudBurst plants have been categorized into five broad plant groups. The phenophase observations of interest are slightly different for each plant group. If you are observing a plant not on the Project BudBurst list, you can choose to observe any of the phenophases. More information on the plant groups and phenophases can be found at www.budburst.org/participate.php.

| Wildflowers & Herbs | Deciduous Trees & Shrubs | | |
|---------------------|--|--|--|
| First Flower | First Leaf | | |
| End of Flowering | All Leaves Unfolded | | |
| First Ripe Fruit | First Flower (or First Pollen) | | |
| All Leaves Withered | Full Flower (or Full Pollen) | | |
| Grasses | End of Flowering (or End of Pollen) | | |
| First Flower Stalk | First Ripe Fruit | | |
| First Pollen | 50% Color | | |
| End of Pollen | 50% Leaf Fall | | |
| First Ripe Fruit | Evergreen Trees & Shrubs | | |
| All Leaves Withered | First Leaf | | |
| Conifers | First Flower (or First Pollen) | | |
| First Needles | Full Flower (or Full Pollen) | | |
| First Pollen | End of Flowering (or End of Pollen) | | |
| Full Pollen | First Ripe Fruit | | |
| First Ripe Fruit | | | |

Step 4. Now you are ready to **begin monitoring** your plant! About a week or two before the phenophase is likely to occur, start observing your plant every day. This way you won't miss the phenophase when it happens and you will be able to get the best phenological data. Use the Phenophase Field Guide (www.budburst.org/resources.php) to help you identify the phenophase of your plant.

Fill out the attached reporting form while you monitor your plant, reporting the dates of each phenophase that apply to your plant. You can stop observing your plant(s) when they have reached the phenophase you were looking for and there is no other, later phenophase you would like to observe.

Step 5. When a phenophase has occurred, **report your observations online** at www.budburst.org/report.php. If you have

registered with Project BudBurst, you can report the phenophases for your plant as they occur throughout the growing season.

If you do not wish to register with Project Bud-Burst, you will report your observations only when all of your plant's phenophases have occcurred – this is a one-time anonymous submission.



Frequently Asked Questions:

Can I observe more than one species? Yes, you will need to keep separate records for each species and report each one individually. Fill out the attached report form for each plant. **Important:** When you have chosen an individual plant or group of plants of the same species to observe (for instance the Common lilac or the Virginia bluebells in your garden), only report the first time you see a certain phenophase.

Can I observe more than one plant of the same speces?

Yes, just be sure to record the location of each and report the observations separately. It is very likely that one plant will be earlier than another individual of the same species. We are very interested in differences between individuals of the same species at different locations (for instance another Common lilac 100 yards away or the Virginia bluebells at the park entrance). When different individuals of the same species vary in phenological timing, it is often due to their environment. Note if the plant is on a north facing or south facing slope (or the north or south side of a building).

Do I have to observe and report all the phenophases?

Although we prefer that you observe and report all phenophases of interest for your plant, you are not required to do so. We are interested in as many observations that you are able to make.

What if I miss a day? Can I still participate? Yes, but it is best to observe every day.

Plant Etiquette/Safety:

• If you are observing plants in public places (such as parks or gardens), state or national forests, wildlife refuges, or private property other than your own, please be considerate. In general, collecting living plant parts (including the flowers) is not allowed in most public places.

• Be careful around plants you are not familiar with. Some have thorns and others may have substances that cause allergic reactions.

• If you are going into areas that have plants such as poison ivy, oak, or sumac, know how to identify such plants so you don't accidentally come into contact with them.



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Fill out this observation form for each plant you observe. Fields marked by * are required. Report online at www.budburst.org!

WHAT PLANT DID YOU OBSERVE? (see plant list at www.budburst.org/plantlist.php, or identify a different plant)

| *Common Name: | | Sketch your plant: |
|-----------------------------|---------------------------------|--------------------|
| Scientific Name (if known): | | |
| WHERE DID YOU OBSE | | |
| *Latitude: | decimal degrees (i.e. 39.9847) | |
| *Longitude: | _ decimal degrees (i.e105.2682) | |
| Elevation: | feet | |
| *City: | _ | |
| *State: | - | |
| Postal Code: | | |
| Comments on Location: | | |

WHEN DID YOU OBSERVE? (The phenophase observations of interest are slightly different for each plant. Visit www.budburst.org/resources.php for more information.)

| Phenophase | | YEAR | / | MONTH | / DAY | |
|------------------------------------|---------------|------|-------|-------|-------|---|
| . <u>.</u> | _ occurred on | | _/ | / | | _ |
| . <u>.</u> | _ occurred on | | _/ | / | | _ |
| | occurred on | | _/_ | / | | - |
| | occurred on | | _/_ | / | | - |
| | occurred on | | _ / _ | / | | - |
| | occurred on | | _/_ | / | | - |
| | occurred on | | _/_ | / | | - |
| | occurred on | | _/_ | / | | - |
| Additional Comments: _ | | | | | | |
| Report online at www.budburst.org! | | | | | | |

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