

JUST THE USUAL ...

Unfortunately, the usual for us (minus the past winter of 2016-2017) seems to be quite dry. This season (measured from July 1, 2017) has accumulated only 25% of what we had last year at this time. Rain began in November with 1.5 inches (compared to no rainfall last November), December saw no rain (compared to last year's 2.75 inches), and January only received 3.5 inches (compared with just over 14 inches last January!). This gives us a total of five inches of rain—far below what we need to have for a healthy orchard. Unfortunately, we'll be praying for no rain the next few weeks because rain during the bloom period could severely damage the forming almond crop.

Per the usual, in November we sowed our nitrogen-fixing cover crop of mustard and vetch and used a rototiller to lightly till in the seeds. The rototiller only tills to a depth of about two inches, so this is still a no-till method to help us plant this cover crop. Also in November we pruned the trees as needed and applied gypsum to the orchard floor. Gypsum is a soluble source of calcium and sulfur and improves overall plant growth. The extra positive calcium ions bind to the clay soil and free up potassium to the trees.

In December and January the trees are in a dormant stage and so the time is right for knocking off the mummies that never fell off the trees during or after harvest. These nuts blacken and form the perfect homes for the navel orangeworm, which is not a friend to the almond tree! These nuts we call mummies. These mummies, once knocked to the ground by hand using sticks, will be broken up by the sheep hooves and fall mowing later in the spring and will then decompose. At this time copper and lime oil is also applied to the trees. This oil prevents mites and scale (sap-sucking, immobile insects) from infesting the trees. Through these dormant months, the crotches of the 1-4 year old tree branches are inspected for another pest—the peach twig borer, and the progress of the forming buds is closely monitored.

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FROM BUD TO BLOOM

Beginning after harvest you can distinguish the buds of the next bloom (known as spurs at that time). After harvest we add boron to the orchard, which is essential for cell wall synthesis and division. Too much boron and it becomes toxic and dangerous to the tree. Nevertheless, it is a necessary nutrient for proper bud development. As the days become colder, we begin monitoring the chill requirement. For proper bud development, the trees need about 500-600 hours with temperatures in the orchard below 45 degrees. Any hours with temperatures above 60 degrees decrease from the number of those chilling hours (the hours below 45 degrees). This year we are concerned that we did not meet our chilling requirement during the dormant (spur and early bud stage) of the trees. We have had a very mild winter with most day-time temperatures in the 60s and no freezing temperatures. This caused our daffodils and crocuses to bloom in January and the almond bloom to begin about two weeks early. We are hoping that this year the bees, utterly crucial to the almond development, will have enough time and numbers to cross-pollinate all of our blossoms. We also have a hedgerow and cover crop which contribute to bee health. The bees that pollinate our orchard we rent from our next-door neighbor, John Foster Apiaries (formerly B-Z Bee Pollination).

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Top to bottom: Brian tilling in the cover crop; our three youngest dogs hanging out in the orchard (Caesar, Roxy, and Noel); and a rented beehive (rented from a neighbor).

A DAY IN THE LIFE OF A FARMER: DAY 3

Sometimes you can gauge how busy your day has been by how low your cell phone battery is at the end of the day. My cell phone is dead at the end of every day! I am usually up by 7:15 a.m. (not super early for a farmer, but then I work until 9 p.m. or later). The first business of the day is turning on the computer and checking for almond orders or other orchard business that needs immediate attention. Labels are printed out and placed on the pre-packaged almond order (we pre-package popular orders right after sorting). There are sometimes a few almond butter requests and specific varieties requested which have not been pre-packaged. Next, I take a long walk with Gretchen, my wife. When I arrive back at the house I determine it is too windy to do any spraying applications in the orchard, so I switch to a small project for my youngest daughter Becca, who is building a bamboo hut. After that there is a car tire to repair, and then I get on the phone to discuss upcoming needs for the orchard with my crop advisor. I next go pull a water sample from the orchard for testing—a quarterly requirement for my food license. Next I continue yesterday's task of pruning our 1400 almond trees. Then my cell phone rings—a customer has a few questions about our almonds. She places an order over the phone, so I go back inside and set up the shipping, charge her card, then return to the orchard. Next I get a visit from my neighbor who will be bringing his sheep over in the spring to mow down the cover crop. This conversation reminds me I need to contact my beekeeper and make sure he has my order in for bees. After leaving a message for him, I come back in and get caught up on tax record keeping (expenses and revenue) and organic certification paperwork. The re-certification paper is due later in the week, so I get my filed input and activity record updated with my latest pruning activity. After that I cross-check my packing labels and ensure all are organic-approved, and then I call my organic certifier to discuss the lime application. The sun is lowering in the sky and the wind has dropped, so I start spraying the orchard trees with lime, copper, and sulfur. I spray for the next four hours as the sun goes down. I hate spraying copper, but the trees need it. After spraying, I have to wash the tractor of all the copper, which can cause excessive rust. It takes an hour to wash it and by that time it's 10-11 at night. I guess I ate dinner in there somewhere. Thank God for headlamps! -Brian



INTRODUCING ...

Well, Brian made it into the news again! This time he was featured in a Capital Press article about veterans-turned-farmers. Check it out here: http://www.capitalpress.com/Nation_World/20171109/veterans-find-new-career-in-farming

By now you probably know a little bit about each member of the Paddock family and how we all contribute in some way to the care of the orchard. I, Alicia, am the editorial officer, and one of my duties is writing this quarterly newsletter. I am in my last semester at Franciscan University of Steubenville, Ohio, where I am studying sociology, with minors in Spanish and Human Life Studies. This semester I am beginning a blog in which I will write about my experiences growing up working on an organic farm and related topics. I will address a wide variety of topics, not all directly related to my personal experiences in the orchard but all are in some way connected to my life on the farm. Topics might include working in nature as therapeutic, the recent decrease in the bee population, or just a few fun stories I have from living on the farm. If this blog sounds interesting to you, please check it out and share it with your friends! <https://thelupineladyca.wixsite.com/mysite>