

# THE SEED

A NEWSLETTER FROM THE CENTER FOR INNOVATION

## Meet the Kids



One year on, and the adorable little baby goats that joined us at the farm last spring are all grown up! They have upgraded their living quarters from the barn to their own private goat estate on the hill overlooking the farm, the centerpiece of which is the lovely new shelter built by a joint effort between the Historic Building Technologies class and Sustainable Agriculture students in the fall. As our herd has grown and matured, they have developed distinct personalities that have earned each of them his own fan base among SKS students and faculty families. Here is a quick profile of our kids and their roles in the herd.



### Bebe

The leader of the pack. Bebe puts her height and weight advantage to good use, keeping the other goats in line and ensuring order among the herd. Those nice, long horns come in pretty handy, too, especially when the tasty treats come out! She is very observant, forcing us to add a clip to their gate chain lock after seeing her teaching herself to open it!



### Brownie

The friendly, curious one. Brownie is the gentler, smaller sister of Bebe. She was quite ill when she first came to the farm and required lots of special attention and care. This has made her especially comfortable around people, so Brownie is always quick to investigate visitors and make new human friends.





## Percy

The lover. Percy is by far the most popular of the herd among our students. He loves to be scratched and petted and will be on your lap in an instant if you give him the chance. He is also the loudest and most vocal of the goats and will often call out to visitors at the farm seeking a little snack or affection.



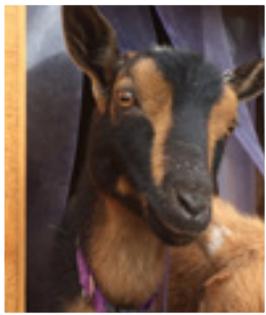
## Yuri

The sweet one. Though more subdued in his approach, Yuri loves a good scratch just as much as Percy. Many students appreciate his calm, sweet demeanor and enjoy taking him out on the leash for a walk around the farm.



## Amelia

The strong, independent one. While not as outgoing or friendly with people as the other goats, Amelia holds her own among the herd. Before Bebe's horns and height gave her the edge, Amelia was definitely on track to rule the roost. She doesn't take her demotion to heart, though, and still stands her ground when necessary, especially at meal time.



## Junko

The shy, quiet one. Junko remains very elusive and wary of people, as she has been from the beginning. While generally acknowledged to be the nicest looking of the herd, she does not allow visitors to get close and has no desire for the behind-the-ear scratches that Yuri and Percy enjoy so much. She clearly prefers to be admired from afar!

# Long Live the Queen

A typical colony of honeybees numbers from between 30,000 to 90,000 individual bees. Each colony is composed of approximately 15% male drones and 85% sterile female worker bees. Amongst all of these brothers and sisters is a single working mom, the queen bee. As a colony ages and grows, workers and drones are replaced by younger siblings. Males die upon mating, their duties in the colony being completed, and workers die from sheer exhaustion in as little as two weeks, depending on the time of year. The queen, on the other hand, lives a much longer life of between 3 and 4 years. Eventually, a colony must replace the queen and will begin preparations to transition to a new monarch. As a queen ages, she will eventually become less fertile. When this time arrives, the worker bees will begin constructing queen cells where they can rear her replacement. If a healthy queen is killed unexpectedly, the workers immediately adapt a worker-bee cell to accommodate the growing of a new queen.

Every fertilized egg has the potential to become the next matriarch. However, through the targeted manipulation of care and feeding by the nurse bees, only a select few will become queens. During the very early stages of bee development, all bees are fed a nutrient and enzyme-rich meal of royal jelly to jump-start their growth. They are then switched to the standard bee diet of nectar and pollen. Queens, though, are reared on royal jelly exclusively. Conventional thinking has held that the diet of royal jelly is what makes a bee into a queen; however, this is now being questioned. The current theory holds that it is not the exclusivity of the royal jelly diet that makes the queen but, rather, the lack of nectar and pollen in the diet that triggers a genetic switch to tell the typical bee egg to become a very atypical, 1-in-90,000 queen bee. We have witnessed all of these scenarios play out in our own CFI honeybee hives, and many students are fascinated to learn about the inner workings of these complex insects. It is incredible to think that after raising bees in human societies for hundreds of years, we are still learning new things!



# Happenings at the Farm

We've had a fairly mild winter this year in South Kent which helped make life a little bit easier for all of our livestock. The goats spent their first New England winter in considerable comfort, thanks to their new student-built shelter. The laying hens also spent their first winter on the property in a

mobile chicken tractor, which was designed on the Hillside and constructed on-site at the farm. As we move ahead into spring and summer, the chickens will be rotationally pastured. This provides lots of good foraging for the hens and also helps build healthy soil on site.



Students helping bring bales of hay up to the goat shed to keep the goats warm

Our oxen, Pancho and Pepe, will also be rotated throughout the fields, spreading their “fertilizer” and helping to reclaim fields that have been neglected for some time. Meanwhile, our goats will be moved to selected spots throughout the site to help reduce the population of invasive plant species, including Japanese barberry. This should help reduce the tick population on site, since barberry is a preferred tick habitat. Our goats also love to eat the invasive multiflora rose, which you may have noticed is prevalent in large thickets around the property. The livestock, working in concert with one another, should make a significant impact on the health and appearance of the site.



We will expand our apiary from four to five hives this year, with four Langstroth hives and a single Kenyan Top Bar hive. The apiary at the North Campus will remain at four colonies, and the fifth will be placed in the vegetable production field to assist in crop pollination. The bees are a student favorite and a great way to get the boys thinking about both the local and global environment. We are able to discuss everything from the life cycle of insects and plants to the lasting impact of our global food economy on the environment through the lens of a honey bee.

We will also continue with flower and vegetable production, bringing fresh delicious produce to the dining hall as well as to local stores and restaurants. Students have recently planted a good portion of the fall storage crops, like onions and potatoes, so that the bounty of the farm can be enjoyed well into next winter. We will add the convenience of a farmstand onsite as well, offering CFI veggies, flowers, chicken, pork, eggs and honey. This serves as a great community engagement tool and will generate some additional income for the program.



The boys gaining hands on experience with farming and taking care of animals

Finally, the CFI will be offering children’s summer camps this year. We will offer two sessions of farm-themed camps for kids in June, plus some cool adult weekend workshops. Hope you can join us this summer. We’ve got a busy season ahead and look forward to seeing you soon at the CFI.



# Camp Cardinal



A week-long, hands-on day camp on a working farm!  
Rooted in  
Seasonal eating • Crafts • Games & activities • Field workshops

Two sessions:  
• June 20-June 24  
• June 27-July 1

Monday - Friday,  
9 a.m.-3 p.m.

Cost: \$275 (10% Discount on Siblings)  
Open to children ages 5-12

more information & sign-ups available at  
[www.southkentschool.org/camp-cardinal](http://www.southkentschool.org/camp-cardinal)



# Great Reads from The Seed

Links to food and farm-related journalism



From Civil Eats, an exploration of the link between student loan debt and the critical shortage of young farmers in America

<http://civileats.com/2016/04/21/what-does-student-loan-forgiveness-have-to-do-with-farming-everything/>

The National Geographic highlights the massive amount of food waste produced annually, and the impact this waste has on environments and economies across the globe.

<http://www.nationalgeographic.com/magazine/2016/03/global-food-waste-statistics/>

This investigative report from the Tampa Bay Times reveals the false claims of “locally sourced ingredients” made by many popular farm-to-table restaurants.

<http://www.tampabay.com/projects/2016/food/farm-to-fable/restaurants/>

From The Atlantic, this short documentary video highlights young farmers and their efforts to improve the American food system.

[http://www.theatlantic.com/video/index/418059/why-north-americas-youth-must-rescue-farming/?utm\\_source=SFFB](http://www.theatlantic.com/video/index/418059/why-north-americas-youth-must-rescue-farming/?utm_source=SFFB)



NPR reports on recent research showing that simply reducing the amount of animal products in your diet, rather than eliminating them altogether, can have a significant positive impact on the environment.

<http://www.npr.org/sections/thesalt/2016/04/22/475293342/you-don-t-have-to-ditch-burgers-altogether-to-eat-a-planet-friendly-diet?sc=ipad&f=1053>



# VEGGIE SPOTLIGHT:

## Asparagus

(*Asparagus officinalis*)

Asparagus, that deliciously crunchy harbinger of spring, is a native of Europe and North Africa and has been cultivated for centuries. There is even a depiction of an asparagus offering in an Egyptian carving from 3000 BC. Long revered for its nutritional and medicinal qualities, asparagus has been proven to contain high levels of the B vitamins, as well as vitamin C, iron and protein. Nowadays, China is the largest producer of asparagus, though we Americans consume more than anyone else. From creamy asparagus risotto, to steamed asparagus with lemon juice or shaved asparagus salad, there are numerous ways to enjoy the spring bounty of fresh asparagus spears. Though local asparagus has only a short-lived harvest window of 6 weeks, its freshness and flavor are like no other. Get some before it's gone!



### Shaved Asparagus with Arugula and Parmesan

#### Ingredients:

- 1/2 lb. medium or large asparagus spears
- 2 tablespoons lemon juice
- 3 tablespoons extra virgin olive oil
- Salt and black pepper
- 6-8 oz. arugula
- Chunk of parmesan cheese for shaving

#### Preparation:

Snap off and discard the tough ends of the asparagus. With a mandolin, a sharp vegetable peeler or thin-bladed knife, slice the asparagus lengthwise into paper-thin ribbons.

In a small bowl, whisk together the lemon juice and olive oil to make a dressing. Season to taste with salt and pepper.

Place the asparagus ribbons in a salad bowl. Season lightly with salt and pepper and coat with some of the dressing. Add the arugula, tossing gently to distribute the asparagus throughout. Drizzle with the remaining dressing.

With a vegetable peeler, shave thin curls of parmesan over the salad.