For my international work experience requirement for IARD I spent eight weeks this summer working on a pecan farm, called Wilson River Pecans, and a sheep cheesery, called Grandvewe, in Australia. I found the farms through the organization Willing Workers on Organic Farms (WWOOF), which puts travelers in contact with farms where they can work in exchange for food and housing. I looked through the listings for farms that were looking for workers while I would be in Australia, and chose Wilson River Pecans and Grandvewe because of their locations and the opportunities that I had available to me while on the farms. While in Lismore, NSW on the pecan farm, I lived in the old dairy which had been converted into a two room cottage; in Tasmania on the sheep cheesery outside of Hobart I lived above the cheesery in an apartment. It was convenient to be living on the farms, as I had a short (one minute) walk to work in the mornings in both places. The housing and food situations varied widely, not only between farms, but also on the farms themselves at different times. This variation and the differences inherent in student’s expectations make it difficult for me to universally recommend this situation to other students.

The work that I was doing at Wilson River Pecans in Lismore was very hands-on with the day-to-day operations of the farm. I had worked in a greenhouse on Saturdays for a few years when I was in high school, in addition to working at a Farmer’s Market in my town, but that was essentially all the practical experience that I had before arriving in Lismore. My first major task upon arriving at the farm was to tie up and prune all of the grafts on the lots down the hill by the river. It took me a week to finish four lots of trees, each containing about 300 grafts. The process with each tree was this: determine which branch on the tree was the grafted segment, prune off
all other branches, and then tie up the grafted portion if necessary to support it and prevent it breaking off. The trees on which I was working were too young to be productive, but they are the future of the farm because in ten or fifteen years, they will be the most productive trees on the property.

Another major task of mine on the farm was expanding the nursery. Plants that had been recently seeded (within two to five years) are kept closer to the shed as they require more care than older plants. Because Geoff, the farm owner, has been seeding more trees within the past few years, his nursery was reaching capacity. My task was to clear an area on the other side of the shed, cover it in black plastic, used normally as concrete underlay, and move plants from the original nursery over to my new area. I would weed as moved plants. I also seeded two new varieties Geoff was experimenting with.

The least interesting aspect of my work in Lismore was on the production and processing end of the operation. Unusually for a farm of their size, Wilson River maintains their own sorting equipment and silos for nut storage. In order to be able to afford the equipment, the farm takes in shipments of nuts from other producers, sorts and sizes them, and then distributes them. The sorting process involves running the nuts through a tumbler which does initial sorting of shell and nut pieces, as well as nuts that are too small to be saleable. Next, the nuts travel on a sorting belt past two people who pick out any diseased nuts. After, they are sized and sorted into the appropriate silo based on size, ranging from jumbo to extra small. However, while I was at the farm, Geoff closed a deal with a Chinese marketer for fifteen tons of nut, which would come from his farm, and also from surrounding farms. This scaling up of the distribution business has the potential to be very profitable, but puts an economic stress on the farm until revenues come in.
The last major area of the farm that I worked on was with the cattle. Cattle ranching is a regional backstop for ecological stresses in the Two Rivers (Lismore area) by providing a steady stream of income in years when the trees yield below normal due to drought or flooding, or in seasons when the trees are not in production, although beef production is not a major part of the farm’s income. Therefore, Wilson River maintains about 100 head of cattle. This mob is small relative to the size of some of the ranching operations in the area. I rotated the mob between paddocks, and seeded two paddocks with vetch to be used as a winter feed supplement. While I was there several heifers calved, and one of my responsibilities was to check on the calves and mothers to make sure that the mother wasn’t having any trouble feeding the calf, and that they were being accepted back into the herd after the birth.

One aspect of working in Lismore that I really enjoyed wasn’t directly related to the tasks that I was doing. Geoff showed great interest in the education I was receiving from Cornell and the classes I was taking. We had very interesting conversations about different philosophies used when practicing agriculture, and about some of the alternative methods Geoff was using on the farm. For instance, to care for plants in the nursery, traditionally the seedlings are sprayed with a mixture of pesticides and fertilizer to give them a kick start and prevent disease which, if it manifests when the plant is very young, can result in either the death of the plant or severely reduced quality and quantity of later yield. Instead of using an entirely chemical based process, Geoff sprays the plants first with a mixture of liquid fish and compost tea (which I was able to apply without wearing a mask or gloves because it does not require a spraying certification) and later with targeted chemical fungicides. The nutrients in the compost tea/fish mixture boost the seedling’s natural immunities, allowing it to ward against most animal pests. Funguses are the major non-animal pests to pecan trees, scab being particularly damaging to yields. Geoff uses
both chemical sprays and a cannibalistic fungus called trichoderma, alleviating scab and other diseases caused by fungus on the trees. The alternative methods that Geoff employs are used to cope with the ecological challenges that face his farm, including the fungal issues that face almost all pecan farms. Having strong, healthy systems as a result of good nutrition during growth allows the trees to withstand traumas such as the major flooding that happened while I was there – the most productive lots were under standing water for six days, and the ground remained waterlogged for a week and a half. Lack of water is also an issue, as it is usually in Australia. During the dry season in Lismore, the pecans, which require large amounts of water, suffer from lack of water. Groundwater pumps in the lots solve this problem, but I saw when I was there that the pumps do not always function as they should; the pump that provides water for two of the lots was broken for a week and a half before I left.

While I was in Tasmania, my major tasks were packaging, cheesemaking, and cheese maintenance. I also spent a significant amount of time cleaning. I had expected to be spending more time doing hands-on work with the sheep, and even doing some work with the winery portion of the farm, particularly after my hands-on experience in Lismore. Although the only experience with dairy that I had had before arriving on the farm was from visiting my family’s dairy farm in the Southern Highlands of NSW, I would have liked to have had the opportunity to learn some of the skill set associated with dairy. However, I was in Australia during the winter months, which meant that there was no applied work in the winery and very little in the cheesery. Also, I felt that the owners of the farm weren’t interested in training me in the more complex tasks that needed to be done on the cheesery. This translated directly into less learning for me, and also feeling more out of place. As a result, I didn’t learn as much about the pressures facing
Grandvewe as about Wilson River. I had gone abroad to learn about applied agriculture theory, and I felt as though I was wasting my time by not learning about what I had gone over for.

The tasks that I was doing were in the cheese making room itself. My first few days I packed lots of the mutton sausages that are a side-product of the dairy business. I also packed many cheeses, which went to be sold either directly on the farm or through restaurants, or at the Salamanca farmer’s market in Hobart. On my day off my ride into Hobart to explore was the truck that picked up all the products to be sold at the farmer’s market. In exchange for the ride, I helped to pack up the stall at the end of the day.

The most interesting assignments that I had while in Tasmania were cheesemaking tasks. The cheeses that I was involved in making were mostly soft cheeses, based on chevre and mozzarella. However, some of the bases (mixture of milk, salt, and cultures) that I was working with are also used to produce harder cheeses (similar to parmigiano reggiano and asiago) if different aging procedures are used. The process of making White Pearl, a sheep’s milk version of mozzarella, is very simple: first, the milk is heated and salt and cultures are added. Then the base is poured into buckets and left in the warming room overnight to sit. The next morning, the base, now at the consistency of thick yogurt, is poured into draining trays that have been covered with cheesecloth and left for the whey to separate from the curd. At this stage in production, the curd would generally be put into molds, which are pressed to release more whey and give shape to the cheese. However, for this cheese the curd is simply placed into the package with oil and herbs to cure. I also helped to make Friesland Fog, an ashed cheese, Ewe Beauty, a camembert variant, and Birch’s Bay Blonde. The final step in all cheese making is cleaning, as the cheese making area must be kept sterile and pristine at all times. Molds, buckets, trays, utensils, and all work areas must be cleaned thoroughly before and after any cheese making activity.
After the being put into molds, the cheese must be maintained while it ages. For cheeses with shorter aging times, this means periodic turning and salt baths for some varieties. Also, the cheeses are sprayed with solutions of their molds to encourage the formation of coatings. For longer aged cheeses, salt baths are given at the beginning of the aging process, with periodical oilings and turnings.

Reflecting now on what I learned over my time in Australia, I did learn a significant amount from my time in Tasmania; however, while these lessons are interesting, I do not plan on exploring them more in the future. In Lismore, on the other hand, I felt I was dealing with problems that were more relevant to my interests. It is for this reason that I felt that the first half of my international work experience was more valuable than the second half. However, both farms had in common economic constraints; part of the reason that Wilson River and Grandvewe take on workers from WWOOF is that they provide a cheap labor source. Grandvewe is also trying to expand by adding a nonorganic line of products, putting them under another economic stress.

I can’t say that I had any particular preconceptions of agriculture in Australia, except those that I made while being on farms around where my family lives. I expected the farm in Tasmania to be more focused on agriculture, and less on constructing a product and an image. My preconception of the more customary way of farming in Australia was embodied by the model at Wilson River. While following alternative methods of practicing agriculture, Geoff and his family still are quite traditional in the way that they operate their farm - family style.