TREES AREN’T JUST FOR THE LORAX ANYMORE: MEASURING NORTHWEST PERMACULTURE EFFICIENCY
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Much of America’s farmland is dedicated to farming corn and it accounts for more than 95% of feed grain production and use in our country. Corn production, specifically monocropping, is unsustainable, and our current industrial practices are a massive contributor to greenhouse gases. I aim to compare the efficiency of corn farming to Northwest permaculture farms in terms of calories and nutrition produced per area. Interning at SkyRoot Farm gave me insight and knowledge into how a farm operates and how to approach comparing production and efficiency when dealing with food. I collected data on corn production from USDA databases and interviewed farm owners to collect data on what and how much their farm produced, as well as relevant inputs like water, fertilizer, animal feed, and labor. That data was combined with USDA nutrition data to find nutrition per area. I found that the permaculture orchards I interviewed performed better in all areas. They used less fertilizer inputs per area, one farm didn’t even use offsite fertilizer. They also used less water per area. There were lower fuel inputs per area on the permaculture orchards, and one didn’t use any mechanized machinery. The large reliance on woody perennials in permaculture that live for decades typically use less water and require less overall maintenance than annuals, contributing to efficiency. The permaculture orchards also produce a wider spectrum of nutrition. Small scale permaculture farms have the potential to feed their communities while also amending the environmental degradation caused by vast monocropping.