Throughout human history, planting and harvesting crops has been one of the most important occupations, providing food not only for the surrounding communities, but also globally in recent decades. Alongside feeding our species, crops also represent the livelihoods of agricultural workers the world over. Threats to any crops should be taken seriously because damage can cause the loss of money, time, resources, and even lives. Many things threaten our modern crops, from insects, to molds and bacteria. In Washington State, for example, orchard fruits such as apples and pears are threatened by apple maggots, causing many farmers to turn to insecticides, a variety of pesticides, in order to protect their crops. These chemicals kill specific insects or bacteria. Unfortunately, however, there are a number of dangerous side effects that come with the use of pesticides, and these dangers are significantly higher for those in minority and lower-income communities.

Direct exposure to pesticides can cause immediate and noticeable damage, such as "stinging eyes, rashes, blisters, blindness, nausea, dizziness, [and] diarrhea" according to Califorinians For Pesticide Reform (CPR), but the long-term effects can often be more life-threatening and take longer to appear. In recent studies, pesticides were shown to be the cause of multiple types of cancer, from leukemia to brain cancer, and may also cause birth defects, infertility, and stillbirths. There are also pesticides that can "interfere with important bodily functions by mimicking or blocking hormones" (CPR). Hormones have incredibly important roles in our bodies as chemical messengers to initiate changes that maintain homeostasis. In other words, without hormones, our bodies would be unable to respond efficiently to changes in our environment.

Despite these extremely harmful effects, pesticides are still widely used in approximately 75% of households in the United States, says the Washington Tracking Network (WTN), and of the "more than a billion pounds of product that are used a year….agricultural use [accounts] for approximately 74%". Most farmers know that pesticides are harmful, but current replacements for pesticides are often more expensive and hard to come by, according to Northwest Public Broadcasting (NWPB).

In Washington State, pesticides are disproportionately used in eastern Washington counties because a majority of Washington's agriculture is produced there. According to WTN, in the years 2019-2021, Grant, Benton, and Ferry Counties, which are all in eastern Washington, had the most pesticide related illnesses in the state, with Grant having 80 cases per 100,000 residents, which is well over the state average of 7 cases per 100,000.

To make matters worse, "the U.S. Census reports that Latinos composed about 12.5% of Washington's population in 2015 but accounted for 40% of pesticide-illness cases that year"(WTN). This is likely a result of a large part of the agricultural workforce in the state being immigrants from Latin America, as the Census also found that, "In 2020, the highest percentages of Hispanic residents were found in central Washington" (Washington Office of Financial Management (WOFM)). Benton and Grant counties specifically, which were two of the counties with the highest rate of pesticide illness, also had some of the highest percentages of Hispanic residents out of all counties in the state of Washington in 2020. The strong correlation between

pesticide illness and hispanic population reveals the extreme ethnic inequities of pesticide use in Washington.

Money is one of the driving factors of these inequities. Immigrant farmworkers are paid much less, on average, than even the lowest paying jobs of American citizens, meaning that, for most Latino farmers, converting to non-toxic, environmentally friendly pesticide alternatives is largely impossible. Despite knowing the dangers of coming in contact with these chemicals, money remains by far the greatest enemy to their own safety.

Of course, money is not the only cause of inequity when it comes to pesticide use. When asked about pesticide-related illnesses, Joanne Bonnar Prado, an epidemiologist with the Washington Department of Health, said, "many more cases likely go unreported because of language barriers and a lack of information about when and how to report pesticide drift." Because many hispanic immigrants do not speak English well, they might have a hard time communicating with people to get help and advocate for safer options. On top of this, many others, especially those who are undocumented, don't have access to proper medical care to treat pesticide illness, further deepening the inequity.

Agricultural workers are not the only ones affected by pesticide use. Pesticides that are sprayed on crops often remain airborne and drift onto neighboring properties, causing people who live nearby to be exposed, and often fall ill. This is known as pesticide drift. Pesticide drift blown off of fields and orchards can cause unknowing neighbors and passersby to come in contact with and fall ill from these toxic chemicals.

For example, an article on Northwest Public Broadcasting described the Perez family, who were hunting for Easter eggs in their yard in Quincy, Washington, in 2017. "Afterwards, we all started getting sick. I think we all went to the doctor," Perez remembered. He said their symptoms included throwing up, diarrhea, scratchy throat, difficulty breathing and stomach aches." (NWPB). Apple orchards surrounded almost every house in the town, and the Washington Department of Agriculture found that a pesticide called chlorpyrifos had drifted onto their property from a neighboring orchard. After several instances of the Perez children falling ill, their dad, Eric Perez, finally purchased the orchard and now farms it organically. However, purchasing orchards is not a financially reasonable solution for most families who live near agriculture and are at risk of pesticide exposure. Most are left to suffer the consequences of pesticide use that they have no control over. While chlorpyrifos was recently banned in 2021, there are many dangerous pesticides still in use.

Furthermore, it is not only families that live near crops that are affected. NWPB went on to describe a study that found that children in Mercer Island had pesticide derivatives in their urine after eating conventional produce. While it was not known whether the levels were high enough to be harmful, it still shows the extent to which pesticides affect the statewide community, specifically lower-income people who cannot afford or don't have access to organic foods.

The huge quantities of pesticides used in our state, the racial and economic inequities of their health impact, and the importance of crops in our global economy are why we chose to

focus our project on the dangers of pesticides. We are directing our poem towards members of the state government. By showing some of the lesser-known effects of pesticides and conveying a sense of urgency, we appealed to the politicians' desires to solve the most pressing issues of our society, and their dedication to the safety of the people they serve. We believe they have the power to help marginalized agricultural workers who have no choice but to use the pesticides that cause them harm, by funding the use of healthier alternatives, implementing higher health standards, and informing people on the dangers of pesticides. Our goal is to shed more light on an issue that many people are affected by, yet are unaware of, and convince lawmakers to advocate for the safety of not only agricultural workers in Washington State, but their families, neighbors, and customers who are suffering under the use of pesticides.