Brylee Patzel
Newman Grove High School
Newman Grove, Nebraska, USA
Italy, Animal Welfare
January 28, 2026

The spreading problem that goes unnoticed

World hunger is something that is often talked about in a bleak sense. Some people don't have the knowledge of what is going on in the world, while others talk about world hunger as if it isn't a major issue. Most people don't think about all the countries that are truly going through this devastating lack of resources. It's not just the fact that they don't have food in their grocery stores; it's also about the animals, the beginning of the food processing cycle. The reason why prices are so high, and families can not afford to eat, is because of the health of the animal before it was turned into a food source. In Italy, this problem with a lack of knowledge or concern has started to arise.

Italy has a population of 58,518,843 people. That's a lot of mouths that need to be fed in the country. 43,459,374 people are living in urban communities, and 16,534,101 people are living in rural areas. With this immense population, 3.4 million people are food insecure. Even with the country being run as a parliamentary republic as a democracy, it isn't saving the millions of people from going hungry. Only 44% of Italy's land is cultivated for agriculture. The average size of a farm in Italy is eight to eleven hectares or twenty to twenty-seven acres. How are the mouths of Italy supposed to be fed if they have no resources to provide them with food? The major crops that are grown in Italy are grains, fruits, vegetables, and soybeans. Even with the growth of the crops, it all depends on the weather, which is defined by the Apennine mountain range that runs through the middle of Italy. The climate in the north is cold in the winter and humid in the summer, while the south has wet winters and dry summers.

The average family in Italy is 2.3 to 2.4 people. That means you have to provide for more than yourself. Which isn't easy considering the average wage for a family is €30,000 to €40,000 annually. Convert that to U.S. dollars, and that's only $34,800 to $46,500 annually. Jobs that are average for a household range from manufacturing, retail, hospitality, and service. Adding on to the stress of an average Italian household, families typically struggle with living expenses, inflation in groceries, and income inequality. Thankfully, some things that they don't have to worry about are access to infrastructure, affordable health care, and education. How is a family supposed to live comfortably if basic resources are some of the hardest things for them to obtain without fear of when or if they will get these things again? Italian families don't spend money eating out; instead, they get their food from local markets and bakeries. They make every meal from scratch, even the pasta. They have a diet of Mediterranean food, which includes fresh fruits, vegetables, legumes, whole grains, olive oil, dairy, poultry, and fish.

In the past, living conditions for some animals in Italy were very poor. Some facilities were facing overcrowding, neglect, and poor sanitation. This all goes directly against animal welfare laws all around the world, not just in Italy. Some farms were even facing convictions for violations in their facilities. The nation sent out EU welfare laws and new national laws to help fix this problem, but critics are still finding gaps. To start the fix for this problem, animal owners were utilizing the outdoor areas for their animals. This is so they could use the land for low-impact, open land farming. Even with open land farming, the issue of calf rearing in male calves has risen. Calf rearing is where the baby calf is weaned off its mother's milk to be independent and stronger. In this case, these male calves have been abandoned too early and have been left to die without care or nurture. In the barn is an even sadder story. This is where

we see the biggest issue in these farms. With pigs, there have been farms that are known for being organic that have dead swine lying in their pens. This is due to overcrowding and the sad lack of veterinary services. Concerns from the public keep growing and making everyone wonder about the condition of the food on their plates. Even with the new laws and regulations being sent out by the EU and the nation, they haven't made a good enough impact. This is because impact and compliance vary.

The status of animal health in Italy right now is not good. There has been an epidemic break in diseases throughout the country, with brucellosis being one. This disease is very contagious and affects animals' reproductive organs, causing them to have late-term abortions or stillborn cattle. The severity of this topic is very high. The outbreak of Bluetongue or BTV has also made a huge impact on the health of the livestock in Italy. The BTV outbreak has made a nationwide epidemic and has gotten so bad that it is spreading to neighboring countries. Midges are often mistaken for mosquitoes, but they are the root cause of Bluetongue. When they bite an animal, they release toxins that make the animal's head swell, run a fever, and potentially lead to death if the case is severe. The reason why it's called bluetongue is that when the head swells, oxygen gets cut off to the head, and the tongue turns blue.

These trends are facing worsening conditions, but improvement in prevention. There is no set trend of getting better or worse; the conditions are staying at a steady state with different situations every day. Factors like climate change, high pet ownership, intensive farming, and gaps in public awareness. Climate change is contributing to this trend by affecting organisms that transmit diseases. High pet ownership and intensive farming have led to owners not being able to take care of their animals. Gaps in public awareness have made people not knowledgeable enough to take corrective measures. This affects both rural and urban populations by disrupting the economy and potential food supply. This affects different education levels, ages, economic status, locations, and occupations. Urban people who are in health care, educated individuals, and pet owners usually have a greater understanding and care for the animals. Rural people with livestock backgrounds usually have less concern for the animals' welfare. This is becuase they usually have poor conditions for their animals already, so they think this is normal or "out of their control".

Animal health in marginalized populations is very poor. A marginalized population is a population of people who are excluded from mainstream society because of disadvantages or discrimination. These people don't have much to provide for their animals becuase they don't even have enough to provide for themselves. Their shelters are not safe, causing animals to get sick. They also don't have the same access to veterinary care because of the high costs. A great vulnerability to these animals has been happening since they have a very low income. Animal health affects the environment through pollution, resource use, and biodiversity. Without healthy animals, diseases, lack of resources, and more can lead to the previously stated environmental effects.

Strengthening legal protections can make it so that animals in bad welfare situations are treated better due to stricter laws. Increasing penalties for animal abuse will also help people not treat animals badly because of the repercussions. The final thing that can help address the animal health problem in Italy is implementing humane animal population management programs. These will educate people about the welfare of animals and help them make the easy choice instead of the right one. These solutions would help the population of animals and people live more safely. It wouldn't solve every problem immediately, but with time and correct enforcement, it would lead to a better life. It won't meet every need, but it will be a start to living better and a safer life with further precautions.

The solutions previously implemented in Italy include national and EU programs. There have also been regional disease programs and Animal-Assisted Interventions to help educate people on the health of animals and their welfare. The solutions that they implemented with the laws helped with animal health tremendously. It helped by creating science-based programs for disease prevention across all of Italy. It also led to having surveillance on the animals and working with them to bring them to health. Farmers' concerns were also raised, and they started to work better with their animals.

The strengths of Italy's animal health is their strong advocacy for animal welfare, which you normally see in urban communities, and robust veterinary services. Robust Veterinary Services are high-quality care from vets that usually require an extensive amount of money.

Neighboring countries to Italy are facing the same problems with diseases. Most neighboring countries are struggling with the Bluetongue disease or BTV. The outbreak of BTV started in Italy and spread to other countries, especially Sardinia. How countries have addressed this issue is by shutting down borders and having high security measures for anything being imported into their countries. This has slowed down the spread of this disease into the neighboring countries. Another thing they did was have extensive emergency vet services for cases where animals were getting infected. It would be important for Italy to use the emergency veterinarian services for animals that are getting diseases. This way, they can shut down the disease in the animal before it can cause more struggles. Using pesticides to remove the insect, midges, would be necessary to keep the animals' health in the best shape.

I would recommend that a pesticide be used in the hot spots where the midges live. Bifenthrin or Deltamethrin is the pesticide that kills the insect that is at the root cause of this disease. Even though these are good pesticides in Italy, Bifenthrin is banned, and Deltamethrin can only be used by lisencesed professional. The professional would need to target soil, standing water, and organic debris to kill off the adult larvae before they can breed. Treating a large public-scale area would cost around €300,000 or $348,682. This would have to be paid for by the individual farmers, but there are funds that they can gain from the government in Italy and the European Union.

The impact I'm hoping to make is to raise awareness of this insect and gain more funding programs for the farmers of Italy. This will help them be able to access resources that they can't afford to keep their livestock safe. The first thing I would start with is creating an awareness campaign about this disease and gaining sponsors from fellow Italian farmers, companies, and the government. I would do all of this to try to reach a goal amount of money to help start a nationwide cleanse of the disease that is tormenting the farmers of Italy.

The limitations are the side effects of the pesticides that can harm the open bodies of water where the insect lives. This can limit resources in Italy and cause more of a greater lack. The need for a more extensive care would be needed in order to protect other resources in Italy. Another limitation would be the gamble of not knowing if this program would get enough care or attention. In order to make sure it gets enough attention, I will make sure that there are people from the country interested and sponsors that are willing to give everything to the cause. The program would then move into requiring more people via social media and interventions.

A big part of Italian culture is food, and that is how I will require the most people in the program. The main headline is to bring safer and cheaper food to the dinner table. In the process, also get all of the

animal lovers by showing the conditions that the animals live in and the diseases that have been affecting them. The final culture norm that will tie into my plan is the strong family ties that people have, which will lead to whole families getting involved with the program. There would be a main managing team of the whole program to maintain a balance of money entering the savings account, costs for interventions, sponsorships, government funding, and location management. Most of the control from this program will be in the government's and professional spraying companies' hands to get the job done, but who would lead this organization is the people. Once they learn more about the disease and how to help make an impact, they can go educate people, ask for help, and sponsor the movement. This will lead to bringing the program in front of countries with similar problems and help achieve goals with unity and strength.

The major resources we would need are people for interventions to help tell people what's going on, and the money to host. Funding is the main baseline of this project to help make costs as low as possible for the farmers. The program would need to follow EU and Italian regulations. The program has to be approved for pesticide authentication, follow environmental directives, and have sustainable use. Italy has some programs for funding already established, like CAP Pillar II, Cost-Sharing, and an Eligibility Program. These foundations will also help go towards pesticide care and working towards making the cure almost cost-free.

This solution is sustainable because it will be well managed and sponsored by not just the government and other programs but also by the people. The program will also make sure that it has full support from the people of Italy, the government, and surrounding countries before it moves into the cure for this disease. My plan and recommendation is feasible as long as it gets the correct support. With our strength in numbers, we can make Italy safer and food more cost-efficient for struggling families.

Bibliography

"Italy Rural Population 1960-2024." *Www.macrotrends.net*, www.macrotrends.net/global-metrics/countries/ITA/italy/rural-population.

Human Rights Watch. "Italy: Events of 2022." *Human Rights Watch*, 14 Dec. 2022, www.hrw.org/world-report/2023/country-chapters/italy.

European Union. "Italy – EU Country Profile | European Union." *European-Union.europa.eu*, 2024, european-union.europa.eu/principles-countries-history/eu-countries/italy_en.

"Italy - Agricultural Land (% of Land Area) - 1961-2018 Data | 2021 Forecast." *Tradingeconomics.com*, tradingeconomics.com/italy/agricultural-land-percent-of-land-area-wb-data.html.

Britannica. "Italy - Agriculture, Forestry, and Fishing." *Encyclopædia Britannica*, 2019, www.britannica.com/place/Italy/Agriculture-forestry-and-fishing.

"ITA | Family Farming Knowledge Platform | Food and Agriculture Organization of the United Nations." *Www.fao.org*, www.fao.org/family-farming/countries/ita/en/.

"Italy Geography and Climate | WorkingAbroad." *Working Abroad*, www.workingabroad.com/travel/italy-geography-and-climate/.

"ShieldSquare Captcha." *Www.globaldata.com*, www.globaldata.com/data-insights/macroeconomic/average-household-size-in-italy-2096127/.

"Average Salary in Italy: Salaries by City and Experience." *Instarem | International Money Transfers*, 18 Oct. 2024, www.instarem.com/blog/average-salary-in-italy/.

Campus, Jenn. "Eat like an Italian: The Real Mediterranean Diet (What about the Carbs, Olive Oil, and Gluten?)." *Medium*, 24 July 2020,

jenncampusauthor.medium.com/eat-like-an-italian-the-real-mediterranean-diet-what-about-the-carbs-olive-oil-and-gluten-38d68b0cce2b.

Jhawar, Madeline. "Italian Hospitality, Home-Cooked Food and New Friends | Italy beyond the Obvious." *Italy beyond the Obvious*, 31 Oct. 2014, italybeyondtheobvious.com/home-cooked-italian-food-new-friends/.

Marie, Valentine. "The Education System in Italy." *Expatica Italy*, 2024, www.expatica.com/it/education/children-education/the-education-system-in-italy-79700/.

"Healthcare in Italy: Ultimate Guide for Expats and Travelers." *Doctorsa*, 4 Apr. 2025, doctorsa.com/stories/healthcare-in-italy/.

"Italy Contributes €2.5 Million to Support Vulnerable Communities in Homs with Enhanced Access to Safe Water, Sanitation Services and Livelihoods." *UNDP*, www.undp.org/arab-states/press-releases/italy-contributes-eu25-million-support-vulnerable-communities-homs-enhanced-access-safe-water-sanitation-services-and.

Philipp, Jennifer. "Everything to Know about Poverty in Italy - the Borgen Project." *The Borgen Project*, 19 July 2025, borgenproject.org/about-poverty-in-italy/.

"MALACARNE - the Dark Side of Industrial Factory Farming. - Documentary Photographer & Cinematographer." *Documentary Photographer & Cinematographer*, 2019, www.francescopistilli.com/a5e99d730c-gallery.

orzechowski, karol. "Farmed Animals in Italy: A Look at the Last Decade." *Faunalytics*, 21 Aug. 2020, faunalytics.org/farmed-animals-in-italy-a-look-at-the-last-decade/.

"Cows, Cheese and Italy's Land without Animals." *Philiplymbery.com*, 2024, philiplymbery.com/cows-cheese-and-italys-land-without-animals/.

"Bluetongue Virus : USDA ARS." *Usda.gov*, 2021, www.ars.usda.gov/plains-area/mhk/cgahr/abadru/research/introduction/bluetongue-virus/.

"Italy: Opinions on State of Health of Pets 2019| Statista." *Statista*, 2019, www.statista.com/statistics/662083/opinion-on-state-of-health-of-owned-pet-animal-in-italy/?srsltid=AfmBOor2KI1Od35BSVkMPCmgzWYl3JEPsnuT3YKijuxD1IFHRIPqxl91.

Benedetti, Ilaria, et al. "Adopting the Fuzzy Approach to Analyze Food Poverty in Italy: A Study on Vulnerable Households Using Household Budget Survey Data." *Socio-Economic Planning Sciences*, vol. 95, Oct. 2024, p. 102006, www.sciencedirect.com/science/article/pii/S0038012124002052, https://doi.org/10.1016/j.seps.2024.102006.

Pirrone, Federica, et al. "Attitudes toward Animals and Their Welfare among Italian Veterinary Students." *Veterinary Sciences*, vol. 6, no. 1, 20 Feb. 2019, p. 19, https://doi.org/10.3390/vetsci6010019.

Froldi, Federico, et al. "Environmental Impacts of Cow's Milk in Northern Italy: Effects of Farming Performance." *Journal of Cleaner Production*, vol. 363, Aug. 2022, p. 132600, https://doi.org/10.1016/j.jclepro.2022.132600.

Rubini, Giulia, et al. "Update on Animal Welfare Perception by Italian Consumers: A Descriptive Survey." *Italian Journal of Food Safety*, vol. 10, no. 3, 29 Sept. 2021, https://doi.org/10.4081/ijfs.2021.9588.

---. "Overview of Control Programs for EU Non-Regulated Cattle Diseases in Italy." *Frontiers in Veterinary Science*, vol. 8, 26 Apr. 2021, https://doi.org/10.3389/fvets.2021.665607.

Loria, Guido Ruggero, et al. "The Implications of EU Regulation 2016/429 on Neglected Diseases of Small Ruminants Including Contagious Agalactia with Particular Reference

to Italy." *Animals*, vol. 10, no. 5, 22 May 2020, p. 900, https://doi.org/10.3390/ani10050900.

"Italy Animal Health Market | 2019 – 2030 | Ken Research." *Kenresearch.com*, 2019, www.kenresearch.com/italy-animal-health-and-veterinary-services-market.

Sacchettino, Luigi, et al. "Description of Twenty-Nine Animal Hoarding Cases in Italy: The Impact on Animal Welfare." *Animals*, vol. 13, no. 18, 20 Sept. 2023, pp. 2968–2968, https://doi.org/10.3390/ani13182968.

"Midge Control: How to Get Rid of Midges." *Solutionsstores.com*, 2026, www.solutionsstores.com/how-to-get-rid-of-midges?srsltid=AfmBOoqjV8QamNZCluNmy2ZLLPGLFOWMptnaCm4O8fQFz1QB1atxzXx1.