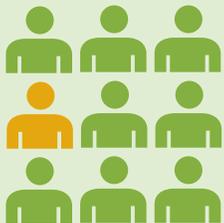


Plant Health to Combat WORLD HUNGER

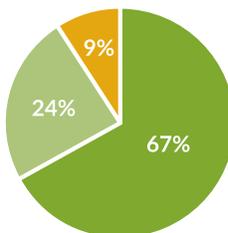
Plant health
is **your** health.



1 in 9 people in the world suffers from hunger and more than 2 billion experience moderate to severe food insecurity. By 2050, **food demand will rise between 60–120%** as the population increases.



Plants produce **over 80%** of the food we eat. Global crop allocation: **human consumption 67%**, **animal feed 24%**, and **industry 9%**.



Plant-based foods for the future

- Plant-based products are made of vegetables, fruits, nuts, and whole grains, among others. Plant-based foods can replace many kinds of beef, fish, chicken, pork, egg, and dairy products.
- Impossible™ Burger is a plant-based burger; Its production emits 89% fewer greenhouse gases than a regular beef-burger. It is included in the menus of over 15,000 restaurants worldwide.
- People are switching to plant-based diets to foster healthy and sustainable habits.
- By 2023, the global market of plant-based products is expected to reach \$6.5 billion.



Plant diseases and pests can cause up to **40%** of crop loss, costing the global economy over **\$220 billion annually**.

Conventional and modern plant breeding technologies can help us to select for **desirable traits** to:

- a) Create plant resistance to pathogens, pests, and environmental stresses
- b) Increase sustainable yield production
- c) Enhance the content of micronutrients to create nutritious crops, such as iron-biofortified beans.



Food security involves a multidisciplinary approach, reforms in human resources, natural resources management, agricultural research, and rural infrastructure.

Investing in **plant health research** is necessary to withstand plant diseases, reduce food insecurity, feed the growing population, and make our planet more sustainable.



Sources: Data from WFP (www.wfp.org/publications/2019-state-food-security-and-nutrition-world-sofi-safeguarding-against-economic); UN FAO (www.fao.org/3/a-i7829e.pdf); UN FAO (http://www.fao.org/fileadmin/templates/ag_portal/docs/i1230e00.pdf); Hallerman and Grabau, 2016 (<https://onlinelibrary.wiley.com/doi/pdf/10.1002/fes3.76>); Medialdea et al., 2018 (www.sciencedirect.com/science/article/pii/S2444569X18300088); Olayanju, 2019 (www.forbes.com/sites/juliabolayanju/2019/07/30/plant-based-meat-alternatives-perspectives-on-consumer-demands-and-future-directions/#2f2f035b6d4a); Plant Based Foods Association (<https://plantbasedfoods.org/why-plant-based/>); and Impossible Foods, Inc. (<https://impossiblefoods.com/mission/lca-update-2019/>).