

Christian Nansen – Mission statement

Long-term vision with my teaching, mentoring, and research is to contribute to capacity building and innovative solutions within the areas of sustainable food production and pest management. My program is inherently multi-disciplinary and with a strong emphasis on innovative technologies and frontiers, which is something I have given invited talks about (<https://youtu.be/tewmnpRjlhl>). I am particularly interested in capacity building and solutions involving optical sensing. Research activities in my program are often directly linked to system development and actual solutions/technologies. As an example, I led the development of a freely available phone app, which by September 2021 had been downloaded more than 10,000 times (<https://bit.ly/3kzYDsy>). With this solution-driven long-term vision, I hope to “sexify” insect ecology, integrated pest management, and sustainable food production more broadly as disciplines and make them relevant and important career platforms to a broad student body. It is particularly interesting and important to me, to recruit students who would otherwise have no interest in agriculture and/or sustainable food production. As example – I recruited undergraduate computer science students to get involved in development of another freely available phone app to perform quality control and optimize pesticide spray applications, Smart Spray. I described this unique collaboration with undergraduate computer science students in an article targeting high school students (and minority students in particular) with interests in STEM (<https://bit.ly/3u0eIL6>). The undergraduate students also became co-authors on a research article about Smart Spray [1].

My team is composed of individuals representing a broad spectrum of research backgrounds, ethnicities, cultures, socio-economic backgrounds, and also opinions, and we are about equal numbers of male and female members. Thus, we are very different and diverse, but we are united behind a trust in science and solution-based research. We are also united behind a deep sense of responsibility – that we must provide guidance and solutions to promote and develop more sustainable food production systems. Equally important, through our academic activities and operations – as well as in our private lives- we carry a huge responsibility to not only talk and do research, but also behave and act as responsible citizens and stewards of this planet.

REFERENCES

- [1] C. Nansen, G.d. Villar, A. Recalde, E. Alvarado, and K. Chennapragada, Phone app to perform quality control of pesticide spray applications in field crops. *Agriculture* 11 (2021) 916.