



## Overcoming Challenges Associated with Crop Fortification and Productivity in the Agricultural Sector

### Did you Know?

---

India is one of the world's largest producers of food grains with more than 200 million tons of annual production.

### Pesticide Coating on Sand Pellets: A Novel Approach

---

Regardless of the high annual food grain production in India, it is a necessity to feed more and more people with the ever-growing population. Pesticides are chemical compounds that protect agricultural crops and help us to reach this goal. The credits of pesticides involve improvement in productivity and reduction in vector borne diseases and their debits include the inadvertent exposure to the environment and farmers while these are mechanically sprayed on the crops. Hence, an alternative was developed in the form of pesticide coated sand pellets to ensure continued health of humans with concomitant increase in crop yield.



### Gansons: An End-to-End Solution for the Customer

---

Employing a conical screw mixer, the sand particles were coated with the pesticide using a binder solution. Parameters such as arm and screw rpm of the mixer, temperature, vacuum air pressure, binder spray rate, viscosity and concentration were optimized to arrive at the final product. Free flowing, orange colour sand granules were obtained at the end of the process with a low value of moisture content.



The customer could successfully use this process to prepare the pesticide layered granules and was able to circumvent the deleterious effects on environment and humans with improvement in yield of crops like corn and wheat.

## Highlights

---

- Uniform three-dimensional product mixing in Nauta™ which facilitates the coating and drying process
- Short process time of less than an hour
- Batch-to-batch reproducibility

# Gansons

**Please contact us for more information:**

Global: [sales@gansons.com](mailto:sales@gansons.com)

Europe: [engineeringUK@gansons.com](mailto:engineeringUK@gansons.com)