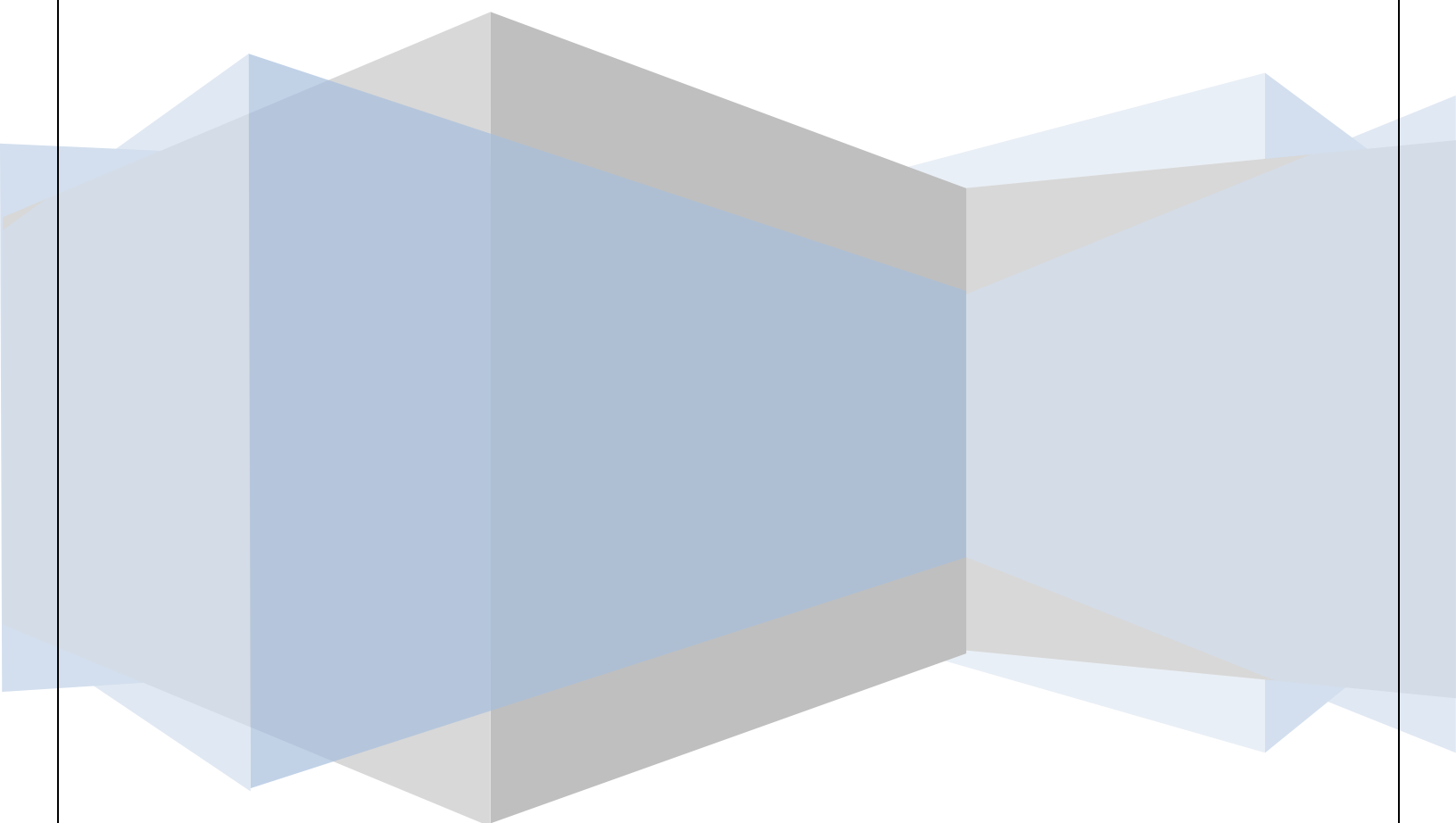


KL UNIVERSITY

THE ORGANIC DRONE



THE ORGANIC DRONE

**COMPONENTS: Drone, Lens, Heat
Sensor, Software**

Generally farmers use fertiliser to increase their yield of crops, Data shared by the government recently indicates that the consumption of chemical fertilizers has increased by around 16% between 2015-16 & 2020-21. From about 510 LMT in 2015-16, the consumption increased to 590 LMT as per provisional figures for 2020-21.



Consumption of chemical fertilizers has been increasing in the country along with increase in agricultural production. An average **500 LMT of Fertilizer** per year was used in India in the last 10 years. India's agriculture is heavily dependent on the usage of fertilizers. Government data indicates that the fertilizer usage has averaged at around 500 Lakh Metric Tones' (LMT) per year in the last 10 years

Nitrogen, phosphorus and potassium (N+P+K) has gone up from 0.78 MT in 1965-66 to 25.58 MT in 2012-13, while food grain production has increased from 72.35 MT to 255.36 MT during the same period. **India ranks second in the world** in terms of fertilizer nutrient consumption, next only to China



High nitrate concentrations accumulate in the edible parts of these leafy vegetables, particularly if excessive nitrogen fertilizer has been applied. Consuming these crops can harm human health.

Studies with ^{15}N -labelled fertilizers show that in a cropping season, plants take more N from the soil than from the fertilizer. ... Optimum fertilizer use on agricultural crops reduces soil erosion but repeated application of high fertilizer N doses may lead to soil acidity, a negative soil health trait.



↑ *Skin problems caused by pesticide exposure.*

Use of excessive quantity of synthetic fertilizers is harmful for human health. It is contaminating the surface water via runoffs and its consequent effects. High levels of nitrates and nitrites in chemical fertilizer may cause some disease like hemoglobin disorders, Alzheimer's disease and diabetes mellitus.

Plant fertilizers are mildly poisonous if small amounts are swallowed. Larger amounts can be harmful to children. Touching a large amount of plant fertilizer may cause severe burns.

All this can be reduced by decreasing the usage of fertilisers, but in order to do that, the crop should be free from the insects, so that the farmers can increase their yield as well as reduce the usage of fertilisers

This is new generation, a new era, the technological advancement is high, we humans can do a lot of things that our forefathers were unable to do.

We can reduce the usage of fertilizers by using modern technology , what is the use of technology if can't use it for better future?

This is where our drones come up , as most of you at present we are using drones in farming sector , but we can also use the drones for other purposes also .

The detection of heat, generally heat sensors are used to measure heat signature of living things. This includes insects also, insects have separate heat signatures, those are different from humans, and we can use our drone for this

Imagine if we equip our drone with a heat sensor, then by using the remote control we can fly over the field, we will divide the land into different sectors, so that our work can be reduced.

When our drone fly over those sectors we can scan the area using our drone, in our camp or main control we can see the data collected by the drone in our laptop, We can exactly pinpoint the amounts of insects in a specified area, by analysing that data we can calculate the accurate amount of fertilizers used in that area, by that we can reduce the amount of fertilizers used and we can increase our farmers yield, this also helps in saving our dying nature



We can charge this service also, so that we can gain some capital for creating more drones, we can sell those drones by teaching the farmers how to use these they can also make a way of living.

We can expand our market in many more countries like

USA

Brazil

Russia

China Mexico

Turkey

Germany

Vietnam

And many more etc

Hope we can make this work because if it works this can be new initiative to save nature and this can also increase our famers yield



