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# Prediction of Pesticides and Fertilizers using Machine Learning and Internet of Things

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Laasya Kanuru ; Amit Kumar Tyagi ; Aswathy S U ; Terrance Frederick Fernandez ; N Sreenath ; Shashvi Mishra **All Authors**

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**Abstract:**

According to the Agricultural Census of India, 64.5% of the population is affiliated to agriculture and yields around 16-17% of the country's GDP. Agriculture is the backbone of our country and is yet an extremely ignored sector, with little or no development taking place. For a country ranked as the second highest producer of rice in the world, it is imperative to be the change and focus on how to improve the methods of agriculture to make the lives of the farmers easier. The use of modern technology in agriculture is the need of the hour. There exists no point in developing high tech - devices as long as there are starving farmers, who have toiled to feed our mouths. An important part of agriculture is the use of pesticides and fertilizers. Pesticides and fertilizers help in keeping the crop safe from pests and in providing additional nutrients in order to grow a successful crop. Although, the use of pesticides and fertilizers could prove to be expensive and harmful if not used with care and precaution. Thus the paper propose a smart farming technique, that will use a GPS module and IoT technologies in order to determine the nature of the soil and the type and amount of pesticides and fertilizers to be used in an efficient methodology.

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**Contents**

**I. Introduction**

India is a nation of more than 1000 million individuals. It is the seventh biggest country on the planet with a geological territory of 328.7 million hectares. Farming is the backbone of the Indian economy, contributing around 22 percent of the total national output (GDP) and providing employment to 66% of the populace. The net developed territory has been around 141 million hectares over the most recent 30 years. Nonetheless, the gross sowing territory has expanded consistently as the power of the yield has expanded from 118 to 135 percent over the most recent three decades. The all out gross trimmed zone is around 190 million hectares. There are 115.6 million farm-holdings, with a normal size of 1.41/ha. As per the Agricultural Census of India, 64.5% of the populace is occupied with agriculture and records for around 16-17% of the GDP of the nation. Horticulture is the foundation of our nation is as yet an exceptionally ignored area, with practically zero advancement. For a nation positioned as the second biggest maker of rice on the planet, it is variable and ought to be centered around how to improve horticultural practices to make ranch practices simpler. Soil well being is characterized as "acting inside the limits of a characteristic or oversaw biological system, to keep up plant and creature efficiency, to keep up or upgrade water and air quality, and to help human wellbeing and learning." Education "Contributes to a more developed society. It is the best user experience. By using our websites you agree to the placement of these cookies. To learn more, read our Privacy Policy. Use of fertilizers in Tamil Nadu

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