SOLAR POWERED AUTOMATIC SOUND MAKER FOR MILLET CROPS

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Abstract

The main problem of today's agriculture is the increasing labor cost, so our idea helps to reduce that labor cost especially focusing on millet crops because all the farmers are cultivating paddy and due to that the supply of paddy is triple than the actual demand of our state. So, if some of the farmers change to millet crops by our device, they get good profits as thus device decreases the labor cost and the millet crops are sold at moderately high price than the paddy. The cost of the device can be reduced if it is produced in bulk. As this is a pure mechanical device the farmers can easily maintain and service the device themselves.Our device runs on solar power which is abundant in the season when millet crops are grown because millet are hot weather crops, neglecting the initial investment for moderate to big farmers this device would push them into profits from their first harvest of crops.

1. INTRODUCTION

"JAI JAWAN JAI KISAN"

The origin of our idea and its main problem to solve is of farmers, we all know as the costs of labor go up the farmers will face a lot of problems additionally of what those they are facing. So, to solve this problem we have come up with an idea so that this idea may help the farmers. Our device is a mechanical device which produces sound automatically to scare birds using solar panel. The device would be of minimal cost and requires less maintenance, it works on the basic idea of striking the plate but it will be automatic using a motor and is powered by solar panel. As millet crops are hot weather crops there will be abundant availability of solar energy.

2. RELATED WORK

There is an existing solution for this problem of birds, which uses the ultrasonic sound technology to scare birds.The one and only main disadvantage is that the

farmers take time to learn to operate the device, and it takes more careful maintenance.In Indian conditions, the most suited type of pavement used in Indian Highways is flexible pavements in which bituminous materials such as dense bitumen macadam are used widely. For the construction of the pavements, the standardized specifications are set by IRC (Indian Road Congress) and mixed designs as directed by the Ministry of Road Transport and Highways (MoRTH) were followed. MoRTH continuously brings about required amendments to improve the quality of pavements and provide the design life of pavements as long as possible.Mix design objectives are to provide sufficient Workability to permit easy placement without segregation, sufficient flexibility to avoid premature cracking due to repeated bending by traffic, sufficient air voids in the compacted bitumen to allow for additional compaction by traffic, sufficient strength to resist shear deformation under traffic at higher temperature, sufficient bitumen to ensure a durable pavement and sufficient flexibility at low temperature to prevent shrinkage cracks. The basic goal is to use of Reclaimed Asphalt Pavement (RAP) with plastic waste effectively in a positive way that benefits society & environment. However, the main goal of the research effort is to reduce the bitumen content by replacing the plastic waste and improve the properties of the bitumen mixture sample with the plastic waste.

3. IMPLEMENTATION

Many of us may have seen that when millet crops are grown the major problem is that of birds. To get rid of the birds the farmers spend a lot of time making sounds to scare birds. If not the farmer himself he should assign the work to laborer's which costs a lot. Due to all of these the farmers ignore the millet crops. If we install this device at specific distances according to the size of land, these make the sound scaring the birds. If the devices are maintained properly in the long millet run crop would be highly profitable for the initial investment made.

1. The device must be easily used by everyone.

2. The cost should be economical.

3. If any problem arises it should be easily repaired.

4. Easily portable.

4. EXPERIMENTAL RESULTS

Metal pieces for base

5. CONCLUSION

The **SOLAR POWERED AUTOMATIC SOUND MAKER FOR MILLET CROPS,** can be used in the crops to reduce the labor cost and ultimately benefit the farmer to increase their profits.Here by we conclude that our device helps the farmers in two ways one is to reduce labor cost and another is to encouraging them to try new crops.

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