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| **SL.NO** | **PRODUCT** | **STRUCTURE** | **ADVANTAGES** | **DRAWBACKS** |
| 01. | Deep trenches. | Farmers dig deep trenches around their fields to prevent animals,from crossing into the farmland. | * Effective against large animals, especially elephants. * Low cost * Can be widened or deepened depending on the severity of the threat. | * These trenches need to be maintained regularly to remain effective and , primarily requiring labor for digging and occasional maintenance, especially during the monsoon season when trenches can fill with water or collapse. * Not effective against smaller animals or animals that can jump. * Can be dangerous for humans and domestic animals if not properly marked or maintained. |
| 02. | Cultural Practices | Using the Effigies and scarecrows placed between and around the field to frighten the animals. | * Inexpensive and easy to implement. * Can be adapted and modified as needed to increase effectiveness. * Reflective tapes or moving parts can be particularly effective against birds. | * Limited effectiveness as animals may become habituated over time. * Requires regular maintenance and repositioning to maintain effectiveness. * May not deter larger animals or those that are less visually oriented. |
| 03. | Use of Trained Animals | Dogs will be trained and allowed to guard the fields at night and day to look after the crops. | * Dogs can be effective in deterring smaller animals like wild boars and monkeys. * Can provide continuous protection without the need for human intervention. * Guard dogs can also provide companionship and security for farmers. | * Requires training and regular care, which can be time-consuming and costly. * May not be effective against larger animals like elephants. * Dogs can become prey to wild animals such as boars, tigers, foxes, and other predators. |
| 04. | Community and Government Initiatives | The community people come together to build and maintain collective fence around large agricultural areas with the collaboration with governmant schemes. | * Community efforts can protect large areas more effectively than individual effort with shared responsibilities. * Government schemes may provide financial assistance and technical support. | * Success depends on the cooperation and coordination of all involved farmers or amoung communities. * Due to lack of timely support from the government can limit effectiveness. * May have ups and downs in fulfilling the specific needs of every farm. |
| 05. | Human Patrol and Watchtowers | Farmers hire the laborers to keep an eye on field from watchtowers and farmers regularly patrol around field often which helps them in detecting and driving away intruding animals. | * Direct and immediate response to animal intrusions. * Provides flexibility to address different types of threats as they arise. * Watchtowers helps in early detection. | * Labor-intensive might require constant vigilance and risk in case of wild attack. * Not sustainable for large farmlands or over long periods. * Can be physically demanding and unsafe, especially at night. |
| 06. | Stone or Mud Fencing | Stone walls or mud bunds are also used to create barriers that prevent animals from accessing the crops. | * Long-lasting and relatively low maintenance once built. * Provides a physical barrier that can stop a variety of animals. * Traditional method, easily implemented using local materials. | * High initial labor and material costs. * Less effective against animals that can dig or climb, such as wild boars and monkeys. * Can be breached by larger animals like elephants if not sufficiently reinforced. |
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| **SL. NO.** | **PRODUCT** | **STRUCTURE** | **COMPONENTS** | **ADVANTAGE** | **DRAWBACK** | **COST** |
| 01. | Solar-powered and electric fencing | Electricity supply to provide mild electric shock to animals. | Solar panel, battery, electricity, poles and wires to pass the current . | * Highly effective against large animals like elephants and wild boars. * Can be solar-powered, making them suitable for remote areas. * Acts as a strong deterrent without causing permanent harm to animals. | * Expensive to install and maintain. * Requires regular monitoring to ensure functionality. * May not be effective against smaller animals like monkeys or birds. * Risk of injury to humans and domestic animals if not properly managed. | Size of PropertyCost Range  1 Acre: ₹50,000 to ₹2 Lakhs |
| 02. | Firecrackers to cause loud bangs | Nelson D’Souza puts a spare firecracker on one side of a half-inch diameter bent iron pipe and sets it on fire. | Firecrackers | * As he walks around the fields and sees any signs of intrusion, he explodes the firecracker. * At the loud sound coming from the other side of the pipe, animals and birds that destroy the crops are startled and instantly flee. He successfully protects his crops by using an iron pipe bend worth. | * Firecrackers may be dangerous to humans and animals and birds. | only Rs 50 and putting a spare firecracker of Rs 1 |
| 03. | Parabraksh | Bengalurean’s 'humane' device to save crops from wild animals | Lighting, sound , poles or bamboo  (Solar + micro USB) | * Four such lights are needed to protect a farm land of 1 hectare, one in each corner. You can mount them on bamboo sticks or steel poles. The height of the stick or pole will depend on the size of the animal you are targeting..He claims Parabraksh is “over 95%” effective in repelling wild boar, nilgai, elephant, tiger, leopard, and the Himalayan bear | While 'Parabraksh' offers innovations for animal deterrence, it may not be effective against all species, potentially leaving some crops vulnerable. | INR 10,000 |
| 04. | Shyam Innovations | Solar Animal Repellents, For farmers forest departments | Solar panel, battery, electricity, poles and wires to pass the current . | * 2 days battery backup. * Portable * Easy to install * GSM enabled | Limited Effectiveness  Power Dependency  Cost Consideration | 38,000 |
| 05. | Nevon projects |  | * PIC Microcontroller * Buzzer * GSM Module * LCD Display * Crystal Oscillator * Resistors * Capacitors * Transistors * Cables and Connectors * Diodes * PCB and Breadboards * LED * Transformer/Adapter * Push Buttons * Switch * IC * IC Sockets * **Software Specifications** * MPLAB * MC Programming Language: C | Easy to assemble | Not so effective |  |
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