Problems at hand.

High soil acidity levels from the area.

Questions:

Fertilizers that can be added to the soil either to increase the soil acidity or lower the acidity.

According to [The San Francisco Chronicle](http://homeguides.sfgate.com/alkaline-tolerant-plants-22452.html),

*if you live in an area with alkaline soil — which has a pH above 7.0 — you have two options. You can either take measures to lower the pH, or you can choose plants well-suited to growing in alkaline conditions. If you take the latter path, you have a wide variety of plants to choose from.”*

The case for synthetic N as a climate stabilizer goes like this. Dousing farm fields with synthetic nitrogen makes plants grow bigger and faster. As plants grow, they pull carbon dioxide from the air. Some of the plant is harvested as crop, but the rest–the residue–stays in the field and ultimately becomes soil. In this way, some of the carbon gobbled up by those N-enhanced plants stays in the ground and out of the atmosphere

We measuring the soil fertility and chemical composition in the soil.

The chemical compositions include: ca, ni, zn, iron.

Then measure the pH level of the soil to determine the alkanity level an and chemical level.

Aafter etreing the chemical composition it is easier for the farmers to know wht type f chemicals to pply and the ideal rice seeds to plant and best type of chemicals to apply.

Then a summary of the report which includes the total requireements nd composition.

Urea is the most used N fertilizer for upland rice, however, a great percentage of N loss can occur with the use of this fertilizer. The use of product s that provide reduction of N loss for urea fertilizers can contribute to increase N use efficiency. The objective of this study was to determine the effect of N rates applied in the form of coated urea in the content and accumulation of N in dry biomass, apparent recovery of nitrogen and grain yield of upland rice. The experimental design was a randomized complete blocks arranged in a 4 x 3 + 1 factorial scheme. The treatments consisted of four sources of N fertilizer [1. Common urea; 2. Polymer-coated urea for slow release of N (PCU); 3. urea with the urease inhibitor N-(n-Butyl) thiophosphoric triamide (NBPT); and 4. urea coated with copper sulfate and boric acid as urease inhibitors (UCCB)], with three fertilization rates (30, 60 and 90 kg ha-1 of N). In addition, we included a control treatment without N application. Coated urea did not provide increases in rice grain yield in relation to common urea. The increasing amount of N resulted in significant increases in rice grain yield (from 3217 to 5548 kg ha-1, 2010/11, and from 3392 to 4560 kg ha-1, 2011/12). The apparent nitrogen recovery rate decreased with the increase in N applied doses.

Common abbreviations and notes: N = nitrogen; P = phosphorus; K = potassium; Fe = iron; Na = sodium; C = carbon; KCl = potassium chloride; KNO3 = potassium nitrate; SSP = single superphosphate; NO3 = nitrate; NH4 = ammonium; FYM = farmyard manure; OM = organ

Notes:

Urea is the most used N fertilizer for upland rice.

Nutrient composition :

Nitrogen: 25% of the soil

1% weekly through foliar

**Irrigated varieties**: Sindano, Basmati 370, Basmat 217, BW 196, BG-90-2, BR 51-74-6 and IR 2793-80-1, ITA 310

PH levels

If your soil is alkaline, you can lower your soil's pH or make it more acidic by using several products. These include sphagnum peat, elemental sulfur, aluminum sulfate, iron sulfate, acidifying nitrogen, and organic mulches.

The pH of highly acidic soils can be raised by incorporating limestone into the soil. Hydrated lime works quicker, but over liming is more likely. The table below shows pounds of ground limestone needed per 100 square feet to raise the pH to 6.5 in the top 6 inches of soil.