- **Use balance quantity of fertilizers on the basis of soil testing report.**

  In modern farming, chemical fertilizer is an important farm input but due to un balanced use of fertilizer, soil fertility is continuously declining which is adversely affecting crop production and productivity. Growing deficiency of nutritive elements for many plants in the soil is clear indication of this problem. Hence balanced use of fertilizers on the basis of soil testing is very essential to obtain maximum quality production and to maintain soil fertility. Soil can be tested in soil testing laboratory of Department of Agriculture, Agriculture University, Krishi Vigyan Kendra and private institutes. Balanced quantity of fertilizers should be used on the basis of soil testing report.

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- **Prevent loss of nitrogen**

  Of the primary nutritive elements absorbed by the crops from the soil, absorption of nitrogen is maximum because the requirement of nitrogen is highest for the plants. Urea is the main source of nitrogen. Nitrogen efficiency of normal urea is 40-50% and remaining nitrogen, around 50-60% is lost due to evaporation, leaching and de nitrification. This loss can be reduced by use of rational & technical method and neem coated urea.

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- **What is neem coated urea**

  Neem oil is coated on urea. Neem coating works as nitrification resistant. It propagates slowly and ensures availability of nitrogen as per crop requirement which results in growth of crop production. Requirement of Neem coated urea is 10% less as compared to normal urea as a result 10% urea can be saved.

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- **Benefits from neem coated urea.**

    - Reduction in cost of agriculture.
    - Increase in income of the farmers.
    - Approximately 10% saving of urea.
    - Increase in yield by 10-15%.
    - Helps in soil fertility as the nitrogen comes out slowly.
    - Decline in import of urea.
    - Savings in subsidy on urea.
    - Use of neem coated urea will be possible.
    - Will control the industrial use of urea.
    - Eco friendly.
    - Increase in efficiency of nitrogen.
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    - Reduces loss due to evaporation and leaching.

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- **Loss from un balanced and excessive use of urea**

  As due to subsidy urea is cheaper, farmers use urea in unbalanced quantity. It results in losses which are detailed below:

    - Increase in cost of agriculture.
    - Increase in ground water, soil and air pollution.
    - High loss of nitrogen.
    - Excessive use of urea results in faster growth of crop due to which the plant is uprooted early and destroyed. Bud formation is adversely affected in pulse crop.
    - Increase in infestation of insects and disease.
    - Adversely affects the quality of crop.
    - Reduction in urea efficiency.
    - Reduction in net profit.

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- **Availability**

  Urea will be available on all cooperative societies of the state, cane federation, UP Agro and retails centers of HAFED and fertilizer sales center of private traders. For more information, contact District Agriculture Officer/ Deputy Director, Agriculture.

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- **Sale Rate**

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- **Method of Use**

  Use balanced quantity of fertilizer on the basis of soil testing report. Half of the quantity of nitrogen and full quantity of phosphorous and potash should be used at the time of sowing/planting and remaining quantity of urea should be used in 2-3 time. Apply fertilizer thrice in light soil and twice in heavy soil. It must be used at the time of tillering and streak formation. Neem coated urea can be used 10% less than the normal urea.

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- **Savings**

  10% less Neem coated urea is required as compared to normal urea. Hence, 5 kg urea will be saved on use of 1 bag of 50 kg

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- **Analysis**

  Use of organic manures and bio fertilizers along with balanced chemical fertilizers on the basis of soil testing report will not only increase in efficiency of fertilizers but soil health will be also be improved. This also

results in growth of quality crop production. Use of correct fertilizer at the right time, in right way and at right place increases the income of the farmers by increase in efficiency of fertilizers. Hence its appropriate use in balanced quantity is essential.

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