

UREA AMMONIATED NEEM SEED KERNEL CAKE FOR LIVESTOCK

Neem Seed Kernel Cake (NSKC) is a protein rich by-product of Neem oil industry, and is easily available. It was hitherto utilized as fertilizer-cum-pesticide only. The cake as such was not used for animal feeding due to the presence of bitter and toxic triterpenoids (azadirachtin, salanin, nimbin, nimibidiol, etc.). Further, even when the Neem seed kernel cake is fed, besides being unpalatable, it is harmful to animals and affect growth, male reproductive system and overall performance. The Indian Veterinary Research Institute (IVRI), Izatnagar has developed technology of treating the cake with fertilizer grade urea and converting it into a wholesome substitute of conventional oil cakes in the concentrate mixtures of various species of livestock.

MATERIALS REQUIRED

- Fertilizer grade Urea
- Neem seed kernel cake

PREPARATION PROCEDURE

1. Take fertilizer grade Urea @ 2.5 kg/quintal of Neem seed kernel.
2. Soak NSKC in an airtight container having solution containing fertilizer grade Urea (2.5% w/w) at the rate of 1 part of NSKC: 1.2 parts of urea solution for 5 to 6 days with intermittent stirring.
3. Sun dry the ensiled cake and ground it for incorporation into concentrate mixture of various species of livestock.

Decorticate/Dehull the Neem Seed and
Solvent Extract to Recover Oil to obtain NSKC

Advantages

- Urea ammoniated, sun-dried and ground NSKC is suitable to feed cattle and buffalo calves, growing lambs and kids and broiler poultry and rabbits without any detrimental effect.

- Urea ammoniated neem seed kernel cake provides a wholesome protein rich substitute to spare costly and scarce vegetable protein sources in the livestock feed.

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ECONOMICS

Besides reducing the cost of conventional oil cake used in concentrate mixture of livestock by 30 to 45%, it can also mitigate the shortage of protein rich feeds to overcome the demand and supply of scarce and costly oil cakes.