

SRN

Slow Release Nitrogen



❖ **URE-Plus – SRN (DMS)** – A breakthrough product from **URE-Plus** Feed Products

URE-Plus – SRN is an innovative product introduced as a source of Slow Releasing Nitrogen along with Calcium, Phosphorus and Sulphur.

❖ **Challenges :-**

- With Genetic improvements of milk production traits in cattle, pressure is building on the feed manufacturers to formulate quality feed at low cost.
- The Challenge is to make nutritionally competent feed using low cost agro by products and ingredients.
- For use of low cost protein source, NPN sources are the one which contributes highest as ingredients to the feed cost.
- Molasses and Urea are going to be constraints in future.

❖ **Urea – Limitations :-**

- UREA often Results into Toxicity: Due to 'Ammonia Burst'
- Due to toxic potential: UREA usage in feed is limited.
- UREA Hydrolysis 4 times faster to NH₃, than the rate of absorption by Rumen microbes.
- Poor utilization in low energy environment.
- Improper Mixing of UREA can be an issue.
- UREA being a highly hygroscopic material, its storage is a risky affair.
- Availability of UREA is always dependent on Govt. Policies.

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❖ **Limitations of Microbial Protein Synthesis :-**

➤ **Two Most Likely Limitations**

- Energy available
- NH₃ available

These two needs to be synchronized for better results.

➤ **For diets containing NPN, may also need**

- Sulfur (for S-containing AA)
- Branched-chain C-skeletons
 - MO cannot make branched-chain C-chains

The Solution...

URE- PLUS

❖ **Nutritional Profile :-**

- | | |
|--------------------------------|-------|
| ➤ Crude Protein from NPN(max): | 143% |
| ➤ Nitrogen(max): | 23% |
| ➤ Ca (max): | 12.5% |
| ➤ Phosphorus : | 0.5% |
| ➤ Sulphur: | 1.25% |
| ➤ Moisture: | < 10% |

All above nutritions in most bio-available form, ***Dry Granular texture.***

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❖ Why It Is Most Relevant In Indian Scenario

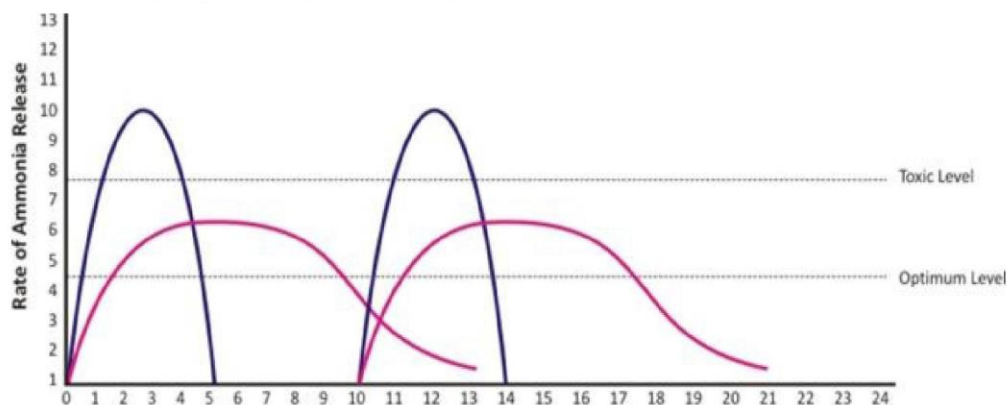
- Milking Practice: twice a day with feed in front of the Animal
- No rules followed: Feed as per his personal assessment
- Animals, mostly fed with roughages and forages

❖ Technical Excellence

- N, Ca, P & S on platter for rumen microbes-better utilization of NH_3
- Ammonia Release synchronizes with Carbon Backbone
- Nitrogen, chemically bound to Calcium and Reducing Sugar
- Decreased solubility, and slower release of Ammonia.
- More uniform level of Ammonia all the day
- *Does not affect BUN /MUN values (@200g/animal)*

| Nitrogen Release from Ure - Plus – SRN

(Graphical Representation) ...

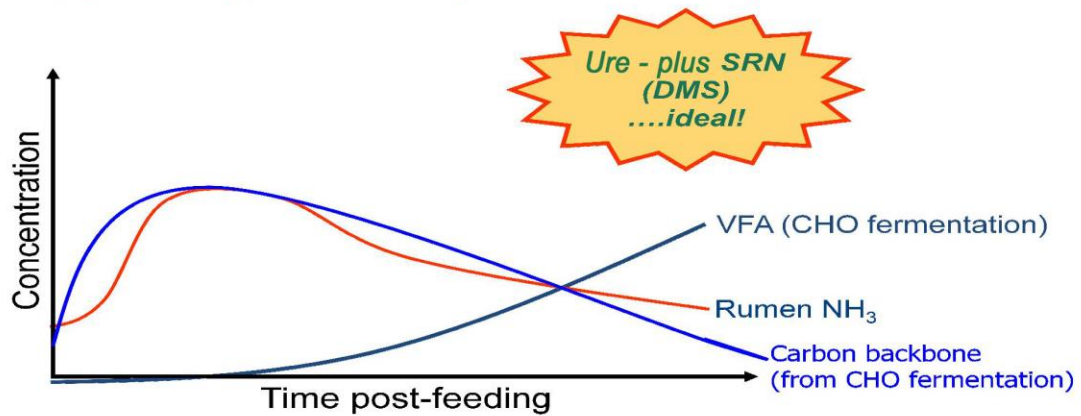




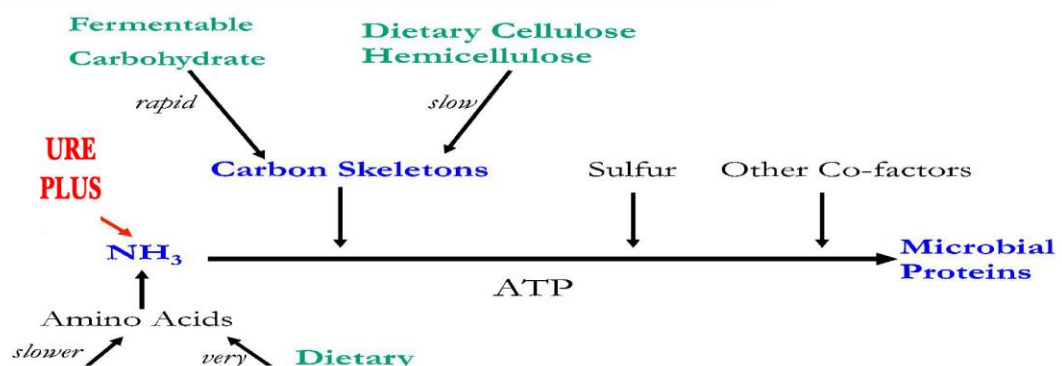
❖ Microbial Protein Formation

Microbial Protein Synthesis

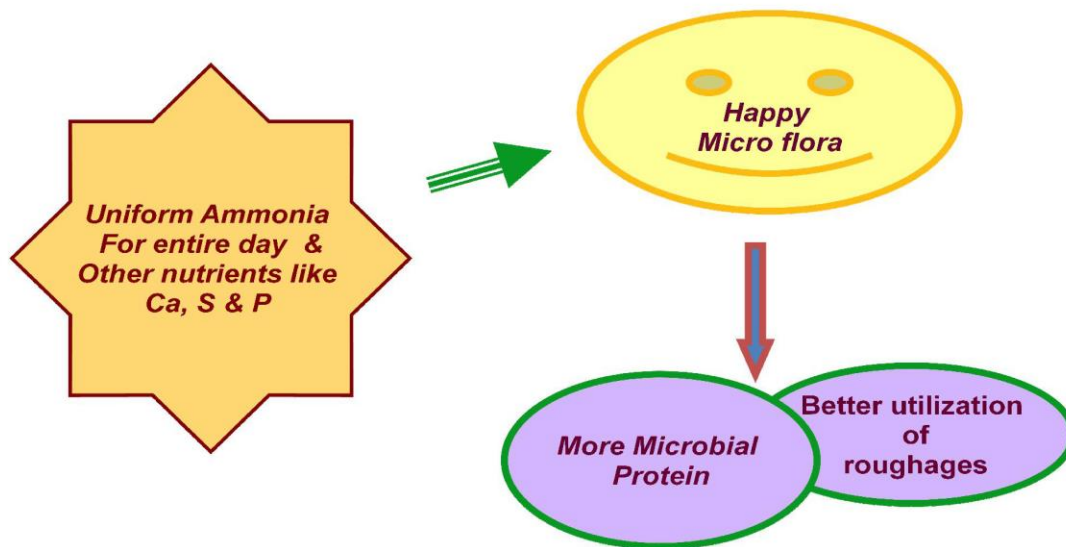
- Important to Synchronize carbohydrate and N availability



Microbial Protein Formation



❖ Microbial Protein Formation



❖ Usage of Ure - Plus SRN (DMS):

- As a source of NPN
- Every addition by 1% of Ure - Plus-SRN in feed will increase 1.43% protein.
- Can be used in UMB / TMR manufacturing.
- Can be used as palatability enhancer. Better than Urea
- No side effects noticed when used at 6% level
- Compatible with all feed ingredients
- Can be used along with Urea (Our trials have shown no side effects upto 3% of Ure - Plus SRN with 1% urea in Feed)



Economics

➤ One Kg of – SRN is equivalent to

One Kg of Ure - Plus – SRN is equivalent to
(in protein terms)

- 3.7 kgs of Cotton Seed DOC
- 3.2 kgs of Groundnut DOC
- 3.1 kgs of Soya DOC
- 8 kgs of Palm Kernel DOC
- 6.2 kgs of Coconut DOC
- 8.9 kgs of Coconut cake
- 3.9 kgs of Rapseed DOC

Easy to store –Non hygroscopic

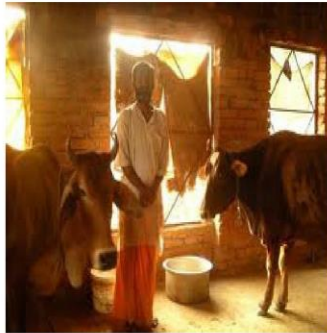
25 KG Packing

Cost Benefit (Per MT of feed) : an Example only . . .					
You Remove					
Item	%	QTY	Rate/Kg	Amount	Av. Protein Replaced
Protein cakes (35% CP)	3	30	12	360	1.05
TOTAL	3			360	1.05
You Add					
Ure - Plus SRN	1	10	20	200	1.44
Molasses	1	10	04	040	0.3
Filler Material	1	10	06	060	0
TOTAL	3	30			1.47
Net Savings / MT of feed with .0. 4% extra protein! Extra highly bioavailable Ca,P &S				60	

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URE - Plus[®]

❖ Benefits to Farmer . . .



Low Cost Fees

Healthy Rumen: Low Medical Cost!

Tailor Made Formulations

Better Utilization of Local Fodder

Better SNF

More Milk

Increased Fat

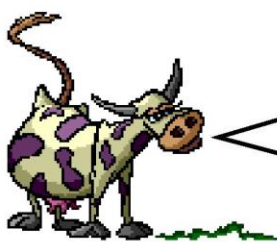
❖ Benefits to Institutions :

Reduced Feed Cost

Increased SNF

Increase Milk Collection

More Fat in Milk



Healthy
Productive
Cows

Happy
Farmer



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❖ **Features :**

- Most stable - between sub zero and 140 C
- Shelf life of 18 months.
- Blends rapidly with all feed ingredients
- Safe for human to handle.
- Can be used in both lactating and dry cow ration.
- Excellent usage in beef cattle fattening
- Increases the palatability of feed.
- Very ideal for Indian feeding and milking practices.
- Enhances roughage digestion and utilization.



❖ **To Summarize :**

- **Ure-Plus** – SRN is one of the best contributor of NH₃ for optimum Rumen Microbial Growth and Turnover.
- **Ure-Plus** – SRN is first of its kind product, which over comes the limitations of using Urea in Animal feed formulation.
- Under the present Indian dairy farming practices, Feed with **Ure-Plus** -SRN is best suited to increase milk yield, growth, and maintain good health.
- **Ure-Plus** -SRN is tailor made for least cost formulation with increased features.
- **Ure-Plus** – SRN can even be used along with urea.
- Organizations can save substantial amount by using **Ure-Plus** -SRN.
- Excellent Technical and service support from the manufacturer.

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❖ **Our Esteemed Clientle :**

- *BANASKANTHA DIST. CO-OP MILK PRODUCERS' UNION LIMITED (**BANAS DAIRY**), GUJARAT*
- *AMRELI DIST. CO-OP MILK PRODUCERS' UNION LIMITED (**AMRELI DAIRY**), GUJARAT.*
- *Many Others.*

BIOVIV LIFE SCIENCE INC
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THANK YOU

