

## Agri Life Oxyrich™ – N

### Soil Aerator Complex for Seed Treatment / Nursery Application

#### Introducing Agri Life Oxyrich™- N

Agri Life Oxyrich™ -N is an agriculture input that has been specially developed for seed treatment / nursery application. Agri Life Oxyrich™ -N is based on Calcium Peroxide along with adjuvants and safeners.

Calcium is an important plant cell wall constituent which actively divides root and shoot cells aiding growth. Naturally supplementing this integral element is essential as it makes the plant sturdy and less susceptible to pest and disease attack.

Similarly Oxygen plays a vital role in photosynthesis as it is essential for the roots to absorb water and nutrients in soil to convert it into 'plant food'. Inadequacy of Oxygen supply to roots causes an anaerobic environment formation leading to root diseases and nutrient deficiencies.

AgriLife Oxyrich™ -N that contains Calcium peroxide. This Calcium peroxide is composed of oxygen being held in a tight bond with calcium, both of which are indispensable when growing high-performance crops. The adjuvants and safeners help in a slow and consistent release of Oxygen to the root zone. In the presence of sufficient oxygen (aerobic conditions), and other nutrient elements, microorganisms will ultimately convert many organic contaminants to carbon dioxide, water, and microbial cell mass.

Agri Life Oxyrich™ –N treated seeds have a higher and uniform germination percentage. Faster growth of seedling is observed when seeds are treated with Agri Life Oxyrich™ –N vis-à-vis non treated plots .Root respiration promotes a healthy root system due to consistent Oxygen supply during crop life cycle.

Agri Life Oxyrich™ -N is thus used for rapid and uniform germination with faster seedling growth.

#### Mode of Action

Agri Life Oxyrich™-N when applied to soil and on coming in contact with water will immediately begin to decompose releasing oxygen. Calcium peroxide is composed of oxygen being held in a tight bond with calcium The breakdown is as follows:  $\text{CaO}_2 \rightarrow \text{Ca} + \text{O}_2$  while  $\text{H}_2\text{O}_2$  decomposes into  $\text{H}_2\text{O}$  and  $\text{O}$ . ( nascent oxygen)

The oxygen released aids in root respiration and calcium ions help in strengthening the crop.

## Method of Application

**Seed Treatment :** Mix required quantity of Agri Life Oxyrich™ – N depending on the crop with jaggery ( approx 50 g.) and sufficient water to make a slurry. Coat the seeds with this slurry such that there is a uniform coating. Dry the seeds in shade and use it to sow the seeds

## Dose :

1. Use 50 g.of Agri Life Oxyrich™ – N / seeds required for an acre for Rice / Cereals and pulses
2. Use 100 g. of Agri Life Oxyrich™ – N / seeds required for an acre for large seeds like ground nut , peas etc
3. Use 25 g. of Agri Life Oxyrich™ – N / seeds required for an acre for vegetable crops

## Crops

Agri Life Oxyrich™ is suitable for application for on Cereals , Millets , Pulses, Oilseeds, Fibre Crops , Sugar Crops , Forage Crops , Plantation crops ,Vegetables, Fruits, Spices , Flowers , Medicinal crops , Aromatic Crops , Orchards and Ornamentals.

## Compatibility

Agri Life Oxyrich™ – N is compatible with all agricultural chemicals.

## Shelf Life

Agri Life Oxyrich™ – N is stable for a period of 12 months from the date of manufacturing.

## Mass Composition

CONSTITUENT	W/W %	FUNCTION
Calcium peroxide	48%	Active
Adjuvants	10 %	Supportive
Safeners	2 %	Supportive
Inert ingredients	q.s..	Inactive

*Free from Salmonella, Shigella , E.Coli*

## Cautions for handling and use of product

1. Avoid inhalation and skin contact during product application
2. Do not eat / drink / smoke during application.

3. Coated and treated seeds should not be stored for more than 24 hours.
4. Direct incidence of Agri Life Oxyrich<sup>™</sup>-N may cause irritation and therefore it is recommended that the operator should use protective gear viz gloves, apron, mask, eye gear and hood.
5. Keep Agri Life Oxyrich<sup>™</sup>-N away from moisture/water; use it up as soon as possible after opening.
6. Keep Agri Life Oxyrich<sup>™</sup> in a cool and dry place, do not expose to inflammables, heat source, fire and direct sunlight.

## Symptoms and Antidotes

**Symptoms:** Occasional symptoms include head ache and nausea

**Antidote:** In the case of ingestion: symptomatic treatment is advised. In the case of contact with Eyes: Flush with water liberally for 20 minutes. In case of skin contact, wash the affected area with plenty of water and soap

## Citations

There are many citations in public domain on effectiveness and use of Calcium Peroxide in Agriculture

## Commitment to Nature

- Agri Life Oxyrich<sup>™</sup> -N is safe to use along with bio fertilizer inoculums like Agri Life Nitrofix<sup>™</sup> (Nitrogen Fixing bacteria) ; P Sol B<sup>®</sup> (Phospho bacteria) ; K Sol B<sup>®</sup> (Potash mobilizing bacteria); Zn Sol B<sup>®</sup> (Zinc mobilizing bacteria) ;S Sol B<sup>®</sup> ( Sulphur solubilizing bacteria) : Si Sol B<sup>™</sup> ( Silica solubilizing bacteria) : Fe Sol B<sup>®</sup> ( Iron / Ferrous solubilizing bacteria) : Mn Sol B<sup>™</sup> ( Manganese solubilizing microbe ) and Agri Life Agrivam<sup>®</sup> (Vesicular-arbuscular mycorrhiza)
- Agri Life Oxyrich<sup>™</sup> -N can be used as an effective component in INM programmes
- Agri Life Oxyrich<sup>™</sup>-N does not lead to residue problems and doesn't cause resistance or resurgence problems.

## Benefits from Agri Life Oxyrich<sup>™</sup> -N

- Agri Life Oxyrich<sup>™</sup> -N treated seeds have a higher germination percentage
- Uniform germination has been observed in Agri Life Oxyrich<sup>™</sup> treated nurseries
- Faster growth of seedling is observed when treated with Agri Life Oxyrich<sup>™</sup> vis-à-vis Control Plots
- Provides calcium which is necessary for plants' growth
- Stops anaerobes to proliferate
- Enhances microbial metabolism
- Aids in adjusting soil pH value