



Knowledge grows

Storage of Fertilizer



Good storage and house-keeping practices are always important to ensure a safe workplace. Where possible, fertilizers should be stored in a closed, secure storage place to protect the product from the weather (sun, rain etc.) and reduce the risk of theft. The ideal storage conditions are:

- Enclosed building capable of protecting the product from the weather and especially direct sunlight.
- Clean environment, free of dust/dirt.
- Temperature between 5 and 30°C (LAN and LAN containing blends are sensitive to high temperatures and temperature fluctuation)
- Protect the fertilizer from moisture, which can cause lumps and dust, influencing spreading capabilities
- Good stock management e.g. carried out on a First In, First Out basis



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Fertilizer application equipment

- Keep an eye on humidity levels too, on a damp day fertilizer can absorb moisture which will affect flow rates.
- Before startup or refilling planting equipment with fertilizer ensure equipment is clean and free of moisture.
- Clean the planting equipment regularly, both during and after use.
- Avoid overnight storage of fertilizer in planting equipment.
- Regularly check your planting equipment for wear and tear as it will have an impact on your calibration.

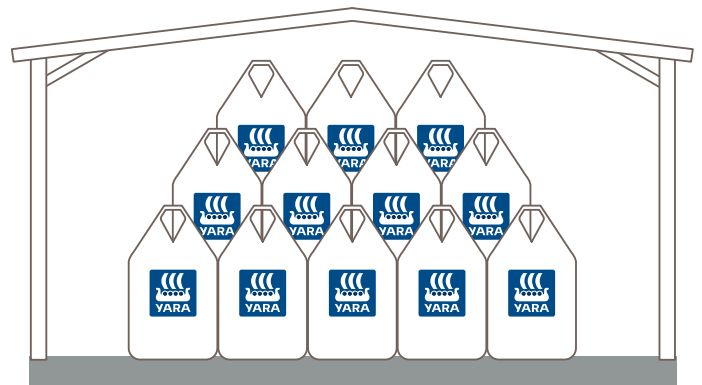




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Indoor storage

- The store should preferably be single store, constructed of not-readily combustible material (e.g. concrete, brick, steel)
- All buildings should have adequate provisions for ventilation to help dissipate heat and discharge fumes in a fire or decomposition.
- The floor should have a level, dry and even surface, free from pot-holes.
- Limit the height of fertilizer stacks.
 - o Bulk bags - Max 3 bags high
 - o 50kg bags palletized - Max 2 pallets high
 - o High stacks of bagged fertilizer can be unstable and may collapse.
- Store at least 1 meter away from building eaves and beams and, in the case of bagged fertilizer, also from walls.
- If you place the pallets on top of each other, make sure you have a firm base.
- Keep the fertilizer away from any flammable material. Make sure you have a distance of at least 5 meters between the materials. Most nitrogen fertilizers contain nitrates which decomposes when heated, developing toxic nitrogen oxides already at 150°C. Some products can even develop carbon oxides (CO, CO₂) and sulphur oxides as well.



Do:

- ✓ Keep a record of what is in storage (ideally a layout plan of the store and materials present).
- ✓ Report to competent authorities any thefts or disappearances.
- ✓ Have key safety information (e.g. safety data sheets) readily available.
- ✓ Train workers in safe handling and emergency response
- ✓ Segregate, treat and dispose reject fertilizer safely
- ✓ Display safety warning notices.
- ✓ Maintain good housekeeping practices.
- ✓ Keep access to emergency equipment and escape routes clear.
- ✓ Label fertilizer bags and bins correctly.
- ✓ Maintain segregation between incompatible fertilizers
- ✓ For maintenance work: get manager's approval and follow correct procedures.
- ✓ Use only approved electrical equipment.
- ✓ Carry out regular safety inspections

Don't:

- ✗ No entry for unauthorized persons
- ✗ No heat source in contact with fertilizers.
- ✗ No smoking or use of naked flame.
- ✗ No gas bottles, oil drums, gas and oil tanks, or fuel filling station in the vicinity of fertilizers.
- ✗ No open fires or hot light bulbs close to products.
- ✗ No hot work unless authorized and done under strict control.
- ✗ No parking of vehicles close to product, including refuelling/ recharging or maintenance.
- ✗ No contamination of fertilizers with combustible and organic materials, seeds, hay, straw, farm chemicals, oil and grease, acids and alkalis.
- ✗ No use of sawdust for drying wet floors (use inert materials instead)