

Soda treatment of grain

Good hygienic conditions are important throughout the entire process. Ensure that both the loading grab and the wagon are clean.

Moist grain can be treated directly from the combine harvester, but treatment of unripe grain is not recommended.

1. Fill 1–5 tons of grain into a waterproof feed mixer wagon.
2. Carefully and accurately add caustic soda using a loading grab (NB: Remember protective goggles and gloves).

Dosage:

- **Wheat and rye:** 3 % caustic soda (30 kg/ton of grain).
- **Barley and maize:** 5 % caustic soda (50 kg/ton of grain).

Make sure to crush any lumps of caustic soda to ensure even distribution and proper dissolution.

3. Mix for approx. 5 minutes.
4. Add water according to the table below, depending on the grain's water content and planned feeding schedule:

| Water content in grain | 20 % | 18 % | 16 % | 14 % | 12 % |
|--------------------------------------|-------|-------|-------|-------|-------|
| Water addition. Litres/ton of grain: | | | | | |
| For long-term storage | 40 L | 60 L | 80 L | 100 L | 140 L |
| For rapid feeding (min.) | 100 L | 130 L | 160 L | 200 L | 220 L |

Stored lye grain must be moistened before feeding to soften the grain and ensure good utilization. Soda-treated grain should have a “cheese-like” consistency when fed.

If grain with a moisture content of 22 % or higher is treated directly from the combine harvester, a minimum of 50 L/ton of water must be added for rapid feeding. No water needs to be added if the grain is to be stored. For very moist grain, 20 kg of cut straw/ton can be added to reduce moisture and improve storability.

5. Then mix for an additional 15 minutes.

When caustic soda dissolves in water, heat is generated. It is the combination of heat, strong alkalinity, and mechanical treatment that acts on the grain. During the process, the grain will darken and the husks will be broken down.

6. Tip the grain into a pile and let it rest for at least 5 hours.
Ensure the surface is clean to avoid contamination – the process continues while the grain rests.
7. Spread the grain in a layer of 30–40 cm and allow it to cool before piling it up again.