Since a couple of years, many progressist stock-breeders have abandoned the use of plastic covers and ballast (old tires, sandbags, ...) to cover their pressed pulp silage. Some are using a layer of degraded potato mash or chicory marc. Others use a layer of beet (or chicory) tails, seeded or not with cereal seeds.

Others are simply drilling a winter cereal, directly on the surface of the ensiled pulp. All these farmers no longer use plastic covers or ballast to cover their pulp silos. Since 2005, the IRBAB has followed some silos of this type. The advantages and the control points of these techniques are summarized below.

**ADVANTAGES of the green covering**

- **No more plastic covers** to be placed on the top of the silo, and to be removed by pulp uptake and to be evacuated!
- **No more ballast** (old tires, sandbags, ...) to be placed, to be removed and stored!
- The water vapour contained in the pulp at delivery time can completely and freely go out of the silo. Thus, **no more mould appear in the upper layers of the silo** (where the excess water accumulates as is often the case in pressed pulp silos pulp, covered too quickly with plastic covers).
- When pulp uptake is at least 1 m/week, there is no mould growth on the silage front in the summer (as is sometimes the case when a plastic cover closes the silage front of a covered silo in the summer).
- No risk of mould growth directly under the plastic cover, as observed when air pockets are present.

- **By pulp uptake, the entire silage front is used**, green cover included.
- **More harmonious appearance** to the farm.
- Perfectly suitable for biogas production.

**Layer of beet tails:**

300 kg/m² (or 30 cm)

**Drilling of cereal:**

1 kg/m²
ENSILING

- Use a clean area for ensiling and easy to access, with a suitable silo dimension for an advancement of 1 m/week (if lower in the summer: peel the front).
- Provide a waste water management system of the silo. Rain water drains towards the edges of the silo, through the silo green cover. Excess water can come out like waste water (± acid). It can not go to the surface water or the street sewage system.
- If necessary, place laterally new plastic covers to protect the silo walls.
- Use pressed pulp of good quality, freshly produced and still hot (±50°C).
- Ensure a correct synchronisation of pulp deliveries (and of beet tails if used as green covering material) to ensure the needed time to finish the ensiling step.
- Work with clean equipment (compaction machine, shovel, boots,...).
- Make the silo by spreading and packing the pulp in regular layers.
- Finish the silo by giving it a rounded shape on top to facilitate the evacuation of rain water towards the edges of the silo. The final surface must be treated very carefully and be very regular. For a mixed silo maize/pulp, use at least 1 m of pulp on the entire surface of the silo. Watch out for rodents if mixed silo maize/pulp.
- Do not exceed a total height of 2 m of ensiling to avoid the appearance of “fat” pulp at the bottom of the silo.
- Spread immediately the green covering material (layer of dried beet tails or broadcasted cereal drilling, then packed with a garden roller) by packing on a regular basis. The cereal grains (non treated !) should not be pregerminated. The moisture and the heat from the pulp guarantee a very fast emergence (3-4 days). Sprinkle where necessary the surface of the silo in a very dry weather period. Sowing of cereal can be done on a layer of beet tails, but the emergence will be slower (the beet tails are cold at the delivery time).
- Cut the excess of the plastic covers that go beyond the edges of the silo.
- Do not disturb the surface of the silo. Do not disturb, scrape or dig the green cover. Avoid movement of animals on the surface (dog, calf, cow,...).
- Wait 3 weeks before unloading the silo. The mould that developed during the first days on the surface of the outer layer of the pulp (or beet tails) should have regressed or disappeared. The surface layer of pulp (or beet tails) decomposes and becomes dry or remains wet depending off the rainfall. The thickness of this layer varies from 5 to 10 cm and may or may not be fed to cattle, provided it is diluted in the mass of the feed ration. In case of removal, use instead the beet tails.

USING the SILO

- If necessary evacuate the moulded pulp zone at the front of the silo (as in all pulp silos).
- If necessary, evacuate the moulded pulp zone inside the silo (never reported).
- Risk of contamination in the inadequately compacted zones (rarely the case with a cover of beet tails which ballasts the entire silo).
- Risk of contamination by dead catch animals to the surface of the silo (very few reported cases of catch birds in an upper layer of ± liquid potato mash).
- Never give mouldy feed to livestock, especially not to young cattle, or to pregnant cows, or cattle sensitive to food intake.

More information on ensiling are given in the Technical Guide « The correct use of pressed beet pulp » published in 2005 by the IRBAB and available, with other more recent publications, on www.irbab-kbivb.be.

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Despite follow-up of numerous silos with green covering and many not- unfavourable analyses carried out on many samples, the IRBAB asbl can not be held responsible for the use of information given in good faith in this document, nor their direct and indirect consequences.