



## Technical Leaflet

# Building a cow tunnel to increase grazing area

### 1 Description of the innovation

One of the key points of a grazed grass-based system is pasture access. Having a large grazing area secures livestock feeding. Sometimes, there are roads that limit grazing for some farms. Building a tunnel for the cows is one solution to increase the pasture area and to secure when animals are crossing.



Grazing can thus be continued in dairy farm even with a milking robot thanks to the tunnel that enables the cows to move freely.

The increases of grazing areas and of the grass part in the diet reduce loads. The decrease of feeding cost allows to secure a return on the investment.

Sometimes, breeders can benefit from subsidies from local authorities or from the European Union. Technical and regulatory requirements exist depending on the type of road to cross.



#### Advantages

- Increasing of grazed-grass part in diet → decreasing of feeding cost
- Securing livestock crossings beneath heavy traffic roads
- Allowing freely crossings to dairy herd in automatic milking farms



#### Disadvantages

- Technical and legal requirements depending on the road size before work begins
- Cost: 15 000 to 50 000 € depending on topography, road type, construction options

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The floor of the tunnel needs to be steady and not slippery. The tunnel must be built in straight line to allow animals to see the light of the exit at the tunnel entrance and move easily.



Use of prefabricated concrete plates with a minimum size of 2 m x 2 m.

Size depending on tunnel use (only livestock or machinery crossings)



Security fence on the road side

Some safeguards:

- Doing a sufficient slope to avoid landslides
- Taking care of draining rainwater
- Implementing protective devices for road users (wall, parapet, guardrail...)

Earth removed during earthwork can be used to provide paths between plots on the farm.

#### More information

- Ouest France paper: <https://www.ouest-france.fr/bretagne/mellac-29300/un-boviduc-pour-faire-traverser-les-vaches-5868592>
- Web-agri paper: <http://www.web-agri.fr/machinisme-batiment/batiment-traite/article/les-vaches-de-p-postec-traversent-sous-la-route-par-un-boviduc-1157-101929.html>
- Actu.fr paper: [https://actu.fr/bretagne/pluzunet\\_22245/pluzunet-boviduc-sous-route\\_18710769.html](https://actu.fr/bretagne/pluzunet_22245/pluzunet-boviduc-sous-route_18710769.html)