

# Prevent heat stress in cows

Even at 20°C and high air humidity, high-yielding cows develop problems with heat stress. The same applies to dry cows 1-2 weeks before calving.

## Heat stress causes:

- Reduced feed intake
- Reduced performance
- Reduced fat percentage
- More cases of mastitis

You cannot always tell whether a cow has heat stress. Only when her condition is really bad, she will breathe quickly, drink more, stand more and drool.

## Use the Temperature and Humidity Index (THI)

The THI Index shows the risk of heat stress.

The Index combines temperature and humidity, the two factors that jointly determine the risk. When the index is above 68, the risk of heat stress is present and this often happens during a typical Danish summer.

Put this table up in your workplace and keep checking your status according to the Index.



## Temperature and Humidity Index for Cattle (THI)

Temperature, °C	Relative Humidity																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
20	49	54	57	59	60	61	62	63	63	64	65	65	66	66	66	67	67	67	68	68	68
22	51	57	60	61	63	64	65	65	66	67	67	68	68	69	69	69	70	70	71	71	71
24	54	59	62	64	65	66	67	68	69	69	70	70	71	71	72	72	73	73	73	74	74
26	56	62	65	66	68	69	70	71	71	72	73	73	74	74	74	75	75	76	76	76	77
28	58	64	67	69	70	71	72	73	74	75	75	76	76	77	77	78	78	78	79	79	79
30	61	67	70	71	73	74	75	76	77	77	78	78	79	79	80	80	81	81	81	82	82
32	63	69	72	74	75	77	78	78	79	80	81	81	82	82	83	83	83	84	84	84	85
34	66	72	75	77	78	79	80	81	82	83	83	84	84	85	85	86	86	86	87	87	87

<68 No heat stress   68-72 Mild heat stress   73-78 Moderate heat stress   79-89 Severe heat stress

## To prevent heat stress

- Provide unlimited access to plenty of clean and fresh water
- Open all barn doors and curtains
- Use fans or ventilators and make sure that they are adjusted correctly
- Use sprinklers or high pressure-cooling as a supplement to ventilation, for instance in the holding pen and in the feed line
- Reduce the number of cows in the holding pen
- Reduce time spent in the holding pen
- Feed twice a day. Preferably early in the morning and late in the afternoon
- Provide freshly mixed and appetizing feed – preferably a concentrated and easily digestible mix
- Increase the level of sodium in the feed to 0.4% of the dry feed – the cow loses salt when sweating
- Supplement with extra vitamins, especially vitamin E

Watch the video **Experiences with heat stress in the cow pen**

