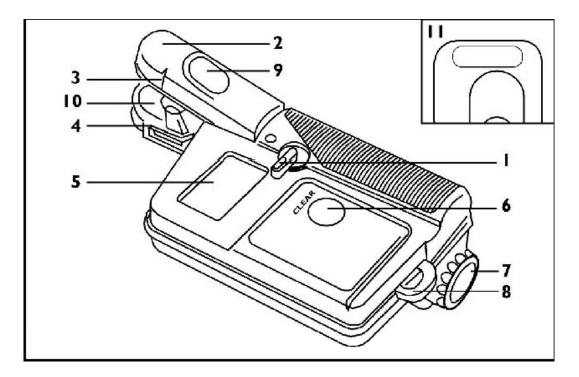
## **Instruction manual N-Tester**



PLEASE READ THE INSTRUCTIONS CAREFULLY BEFORE USING THE APPLIANCE.

- 1) Switch: On (ON) / Off (OFF)
- 2) Measuring head: The measurement is carried out in the closed state
- 3) Marking: shows the height of the measuring window
- 4) Measuring aid: for easy sheet insertion
- 5) Display
- 6) CLEAR button: Deletes all measured values
- 7) Battery chamber
- 8) Eyelet for carrying strap
- 9) Thumb guide: Optimal pressure point for measurement
- 10) Measurement window: the measurement is carried out here
- 11) Test disc: separate part for checking the functionality of the Hydro N tester.

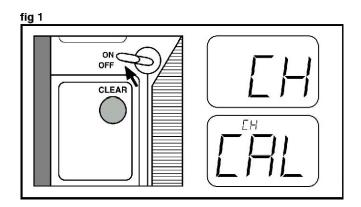
## **Instructions for use:**

- 1) Switch on : On/Off switch to On: the display shows "CAL".
- 2) Squeeze the measuring head for approx. 2 seconds until a beep sounds and "N=0" appears on the display. (Measurement can only be started after this internal calibration).
- 3) The measurement is to be carried out directly in the field. Place the leaf with the centre (transverse and longitudinal) between the two measuring heads (for grain the youngest fully developed leaf). The measuring aid on both sides optimises the position of the leaf.
- 4) Press the measuring head together until "N=1" appears in the display (= first measurement). If the sheet has not been inserted optimally, a multiple beep sounds and the measurement must be repeated.
- 5) Repeat the measurement until "N=30" appears in the display.
- If the measured values deviate too much, they are automatically deleted. These measurements must be made up until
  N=30 appears in the display and the three-digit mean value is shown.
- 7) Press the CLEAR button to start a new series of measurements.

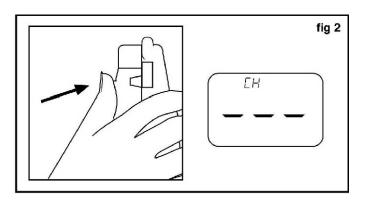
## Instructions for use for the test disc

You should ensure the functionality of the N-tester from time to time by testing it with the test disc.

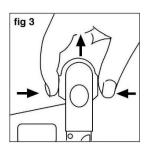
1) Switch on the unit while simultaneously pressing the CLEAR key. The display first shows "CH" and then automatically "CAL" (Fig.1).



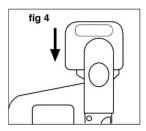
2) To calibrate the unit internally, squeeze the measuring head until a beep sounds and "---" appears in the display. When a series of beeps sounds and "CAL" appears in the display, repeat step 2 (Fig.2).



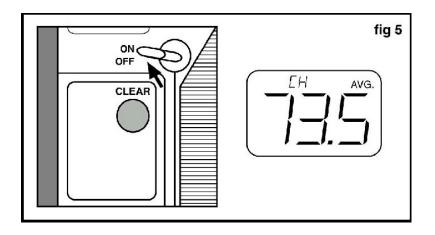
3) Remove the measuring aid (Fig.3).



4) Slide the test disc under the measuring head. Squeeze the measuring head until a beep sounds and a reading appears in the display. If a series of beeps sounds and "---" appears in the display, the measurement was not performed correctly. In this case, repeat step 4 (Fig.4).



5) The measured value should match the value indicated on the test disc within the tolerance limit. (Each test disc has its own nominal measured value, e.g. value = 73.0; tolerance +/- 3.0) (Fig.5).



- 6) Press the CLEAR button and repeat step 4 several times while the test disc remains under the measuring head.
- 7) If the value is not within this tolerance limit, clean the two measuring windows in the measuring head with a soft cloth. Now repeat the functional check of the unit starting with point 1. If the value is still outside the tolerance limit of the test disc, the unit is faulty and must be checked. Then send it to Hydro Agri GmbH & Co KG.