

dip stick®

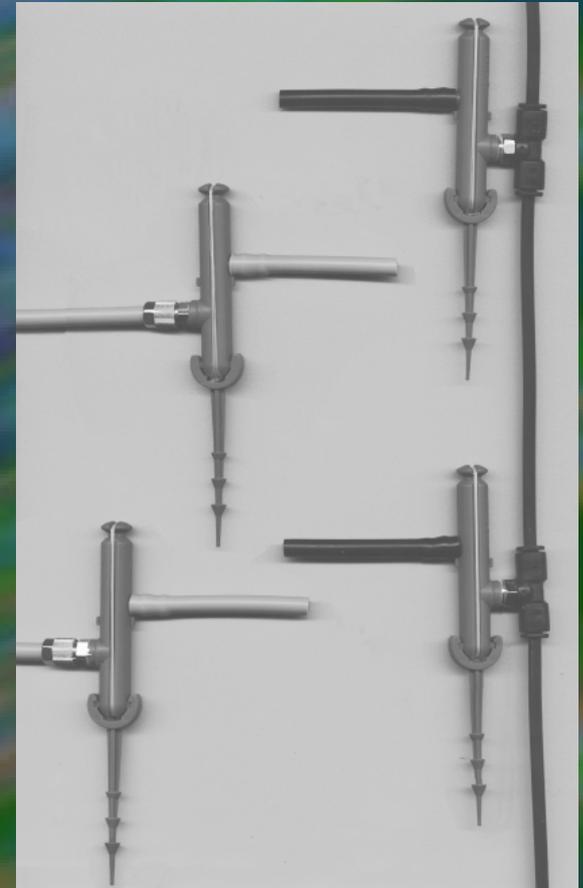
the controlled drip irrigation

by *dip* GmbH

dip GmbH

dip stick® - dripper

- high tech in irrigation technique
- the dripper that controls itself

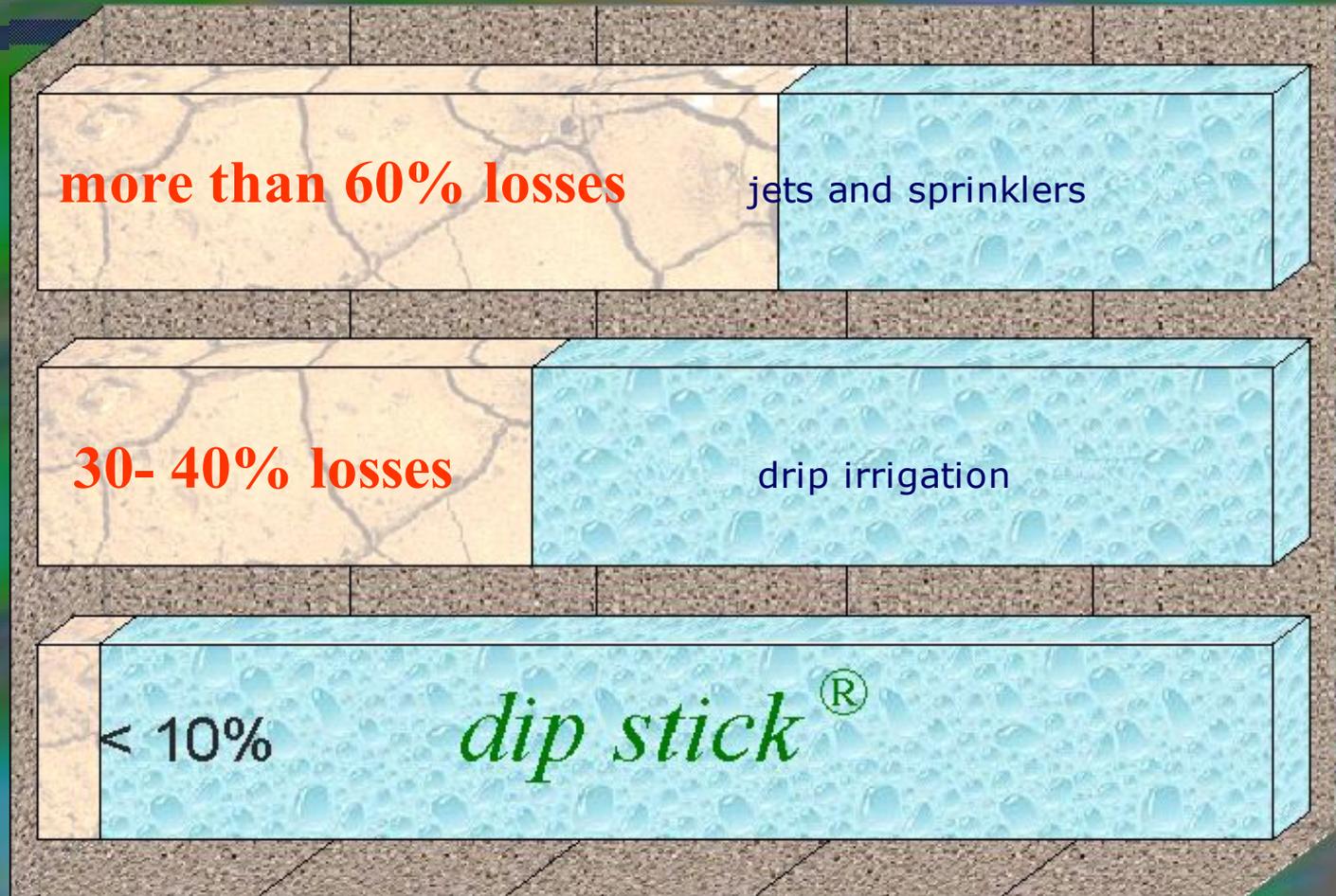


Water is precious



- there is a lack of water for 1.5 billion people
- 60 to 80% of the available water is consumed by agriculture
- from this amount 60% are lost by irrigation
- objective: water provision for the plants according to their needs

Water losses (in %)



Irrigate according to the need of the single plant

by the *dip stick*[®] - it means:

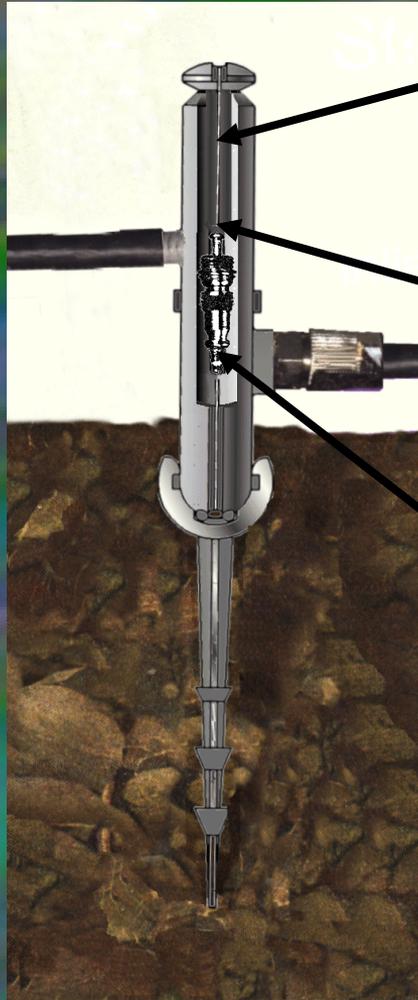
- higher yields
- less losses
- less water need
- lowering of the current costs

construction of the *dip stick*®



- tappet
- husk
- polymer sensor, simultaneously acting as actor
- screwdriver

construction of the *dip stick*®



- contraction fibre contacts
- tappet presses on the valve
- valve opens

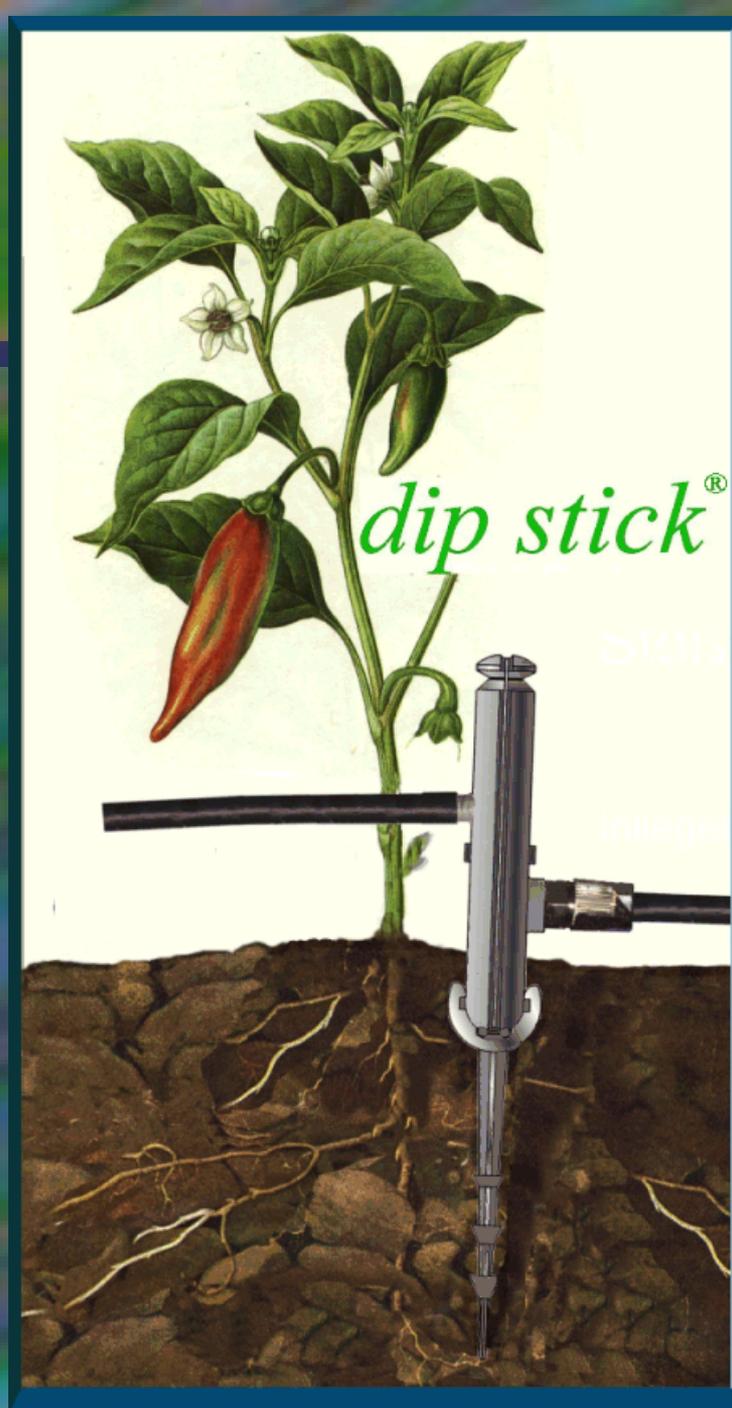
function *dip stick*®

- wet = closed
- ✓ at rain or at a sufficient soil humidity
- ✓ polymer sensor feels humidity
- ✓ without electrical energy
- ✓ valve closes safely

function *dip stick*®

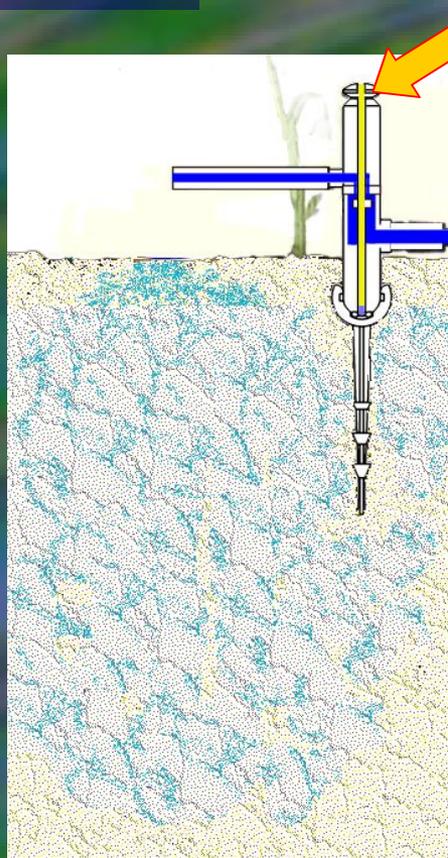
- dry = open
- ✓ soil surface gets wet
- ✓ polymer sensor contracts
- ✓ valve opens water influx

dry
=
open



wet
=
closed

What is the exact function of the *dip stick*®



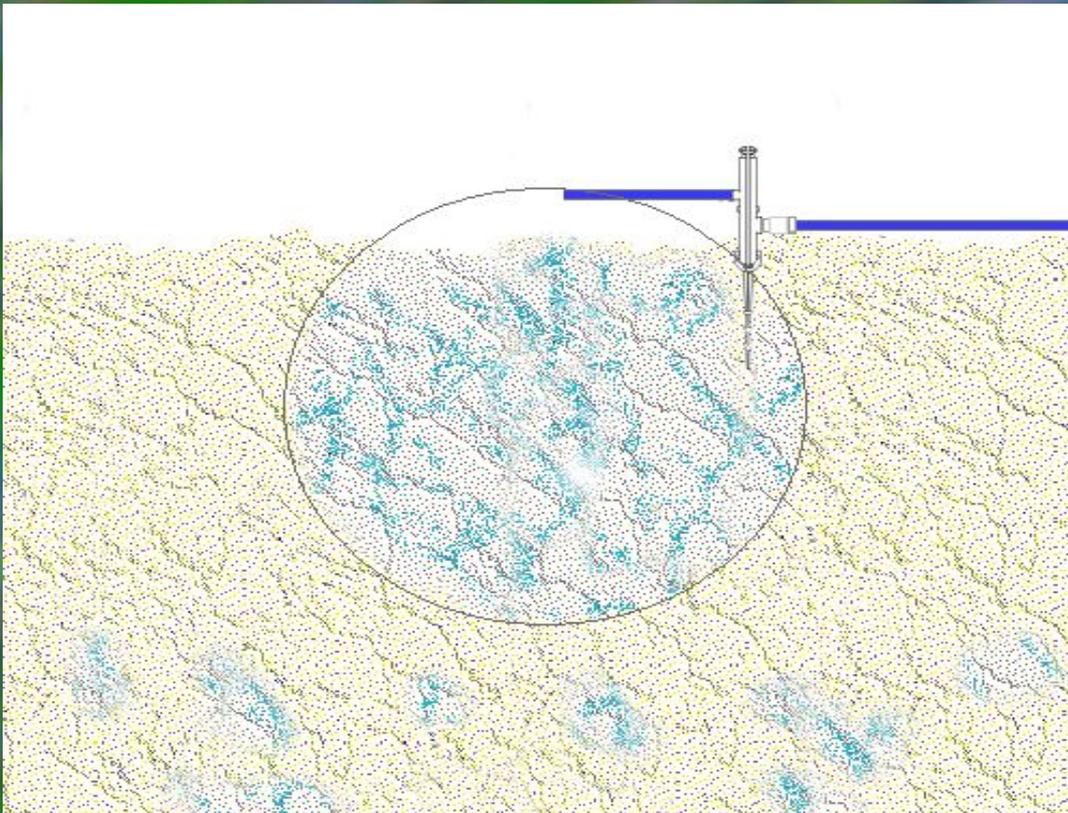
- If the surface gets dry
 - the polymer sensor reacts, it contracts precisely
 - the valve opens the water influx

Technical details of the *dip stick*[®]

Recommended working pressure:	0,05
bar	
The present dripping performance during one cycle is regulated variably:	
smallest aperture:	1,50 bar
l/h	
maximum aperture:	<0,7
l/h	
reaction time precipitation: dry to wet:	ca. 30
sec	7-9
reaction time soil dryness, wet to dry:	ca. 8 min

There are according to the soil type of plants, size, type of soil, wind change and also other factors at sunshine ca. 1-3 switch cycles per hour, the duration of dripping is about 8 minutes.

Water distribution *dip stick*®



Plants are only irrigated if they really need the water.

- The controlling circuit brings about that only a certain area is kept humid. Outside of this area the soil stays dry.

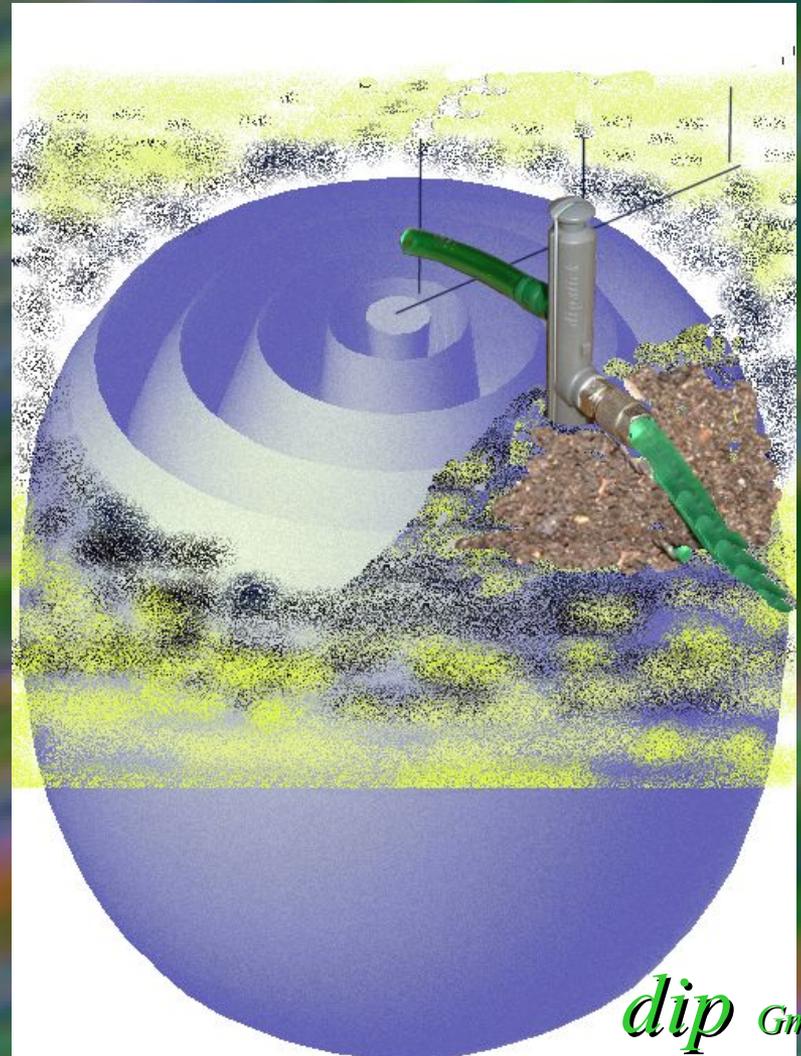
- There is no water loss.

Water distribution horizontal and vertical

Water distribution *dip stick*®

The growing "irrigation onion", that is the area with soil humidity, should have the size of the root bale of the plant.

- The area has the diameter of ca. 30cm, at a normal length of the drip hose.
- Larger areas up to 1,50m, for trees and bushes, for instance, are irrigated by other and bigger drip hoses and vertical pipes.
- Recommendation: The length of the drip hose should be the third part of the depth of the root.





- more beautiful blossoms
- less water need
- less losses
- protection of the environment
- enlargeable in modules

■ The *dip stick*® saves water. It prevents too much or too less water for the plants and damages, too. The plants are provided best possible and stay healthy.

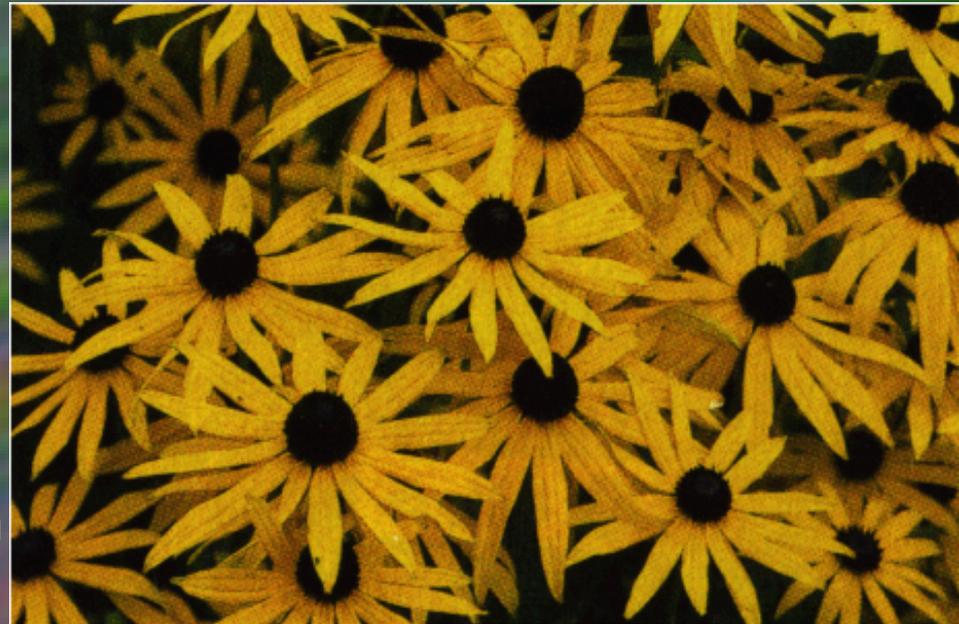
■ Zones of different humidity belong to the past, for instance heterogenous plantages or structured profiles.





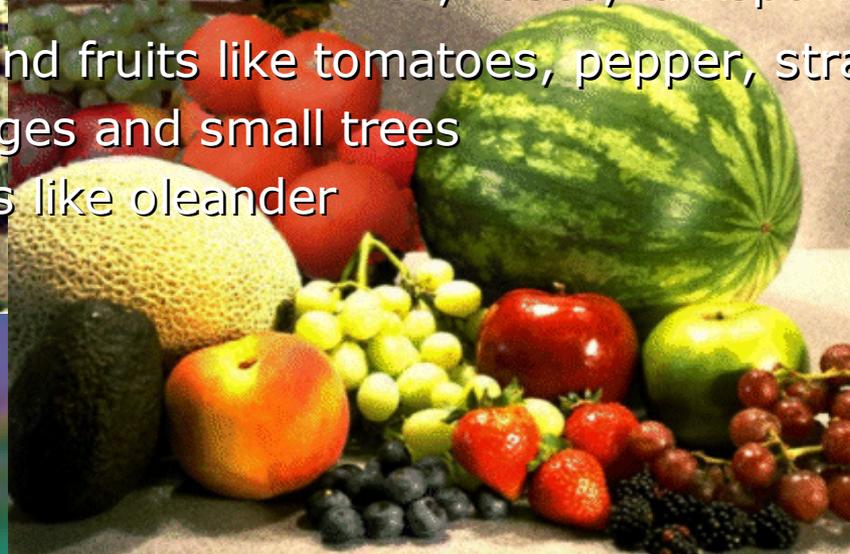
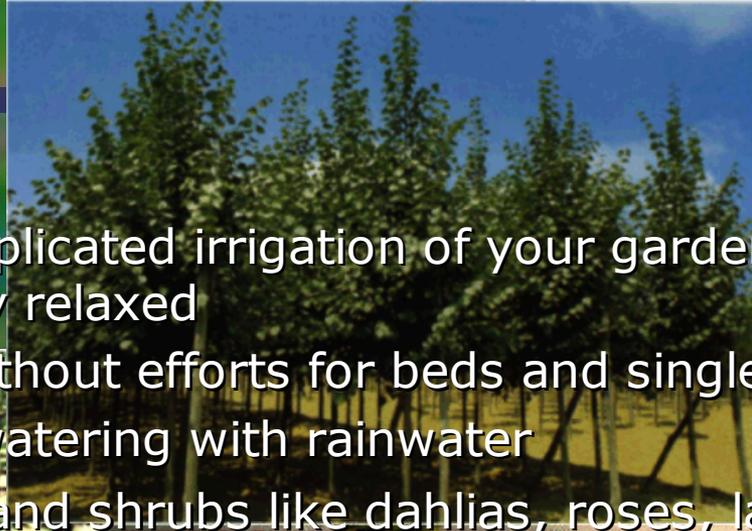
The *dip stick*® is more and more important for the open-air horticulture and for the irrigation of small areas without the supply of pressure water. By using a water container it can be irrigated very reliably without water pressure or electrical regulation. The irrigation by rainwater is very easy possible.

The *dip stick*® is working very exact at a low pressure. Differences in pressure are equalized by long and thin hoses and by differences in soil structure in altitude without problems. As well as differences in soil structure or by heterogeneous plantages. Small modular systems are possible.



Applicabilities

- with uncomplicated irrigation of your garden, you can go on your holiday relaxed
- irrigation without efforts for beds and single plants
- automatic watering with rainwater
- for flowers and shrubs like dahlias, roses, larkspur...
- for vegetables and fruits like tomatoes, pepper, strawberries..
- for bushes, hedges and small trees
- for potted plants like oleander



For the private client

- completely packed with
- connection, foil sieve, hose



For the professional horticulture

- with container and main net for:
 - - vegetable gardening
 - - fruit gardening
 - - wine growing
 - - horticulture



Irrigation directly from water container

Decorative jars bring interesting solutions in garden and landscape creation, in private gardens and parks



The containers, for example amphoras or chep rain butts, can be connected as a set



Water directly from containers



Irrigation without high water pressure directly from high-stored plastic- containers and cisterns with the *dip stick*[®] - system. Fast and easy, water from flexitanks for transport and storage in containers with a capacity up to 24.000 liters, or for rolling out, connecting, filling. Ready up to 400.000 liters.

Vorteile

dip stick®

- exact water dosage
- it saves water
- higher yields
- less losses
- prevention of salting
- free of maintenance
- easily to handle
- it is possible to install small irrigation systems

dip gmbh

dosing irrigation products



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dip gmbh

In the Vogtland

The small town of Ellefeld is located in the Vogtland district, embedded in the forests of the natural park Ore Mountains - Vogtland, the utmost south-western region of the Free State of Saxony. Here in the valley of the river Goeltzsch, near the frontier to Czech Republic and the boundaries to Bavaria and Thuringia, at an altitude of 500-600m, the red and white Goeltzsch flow together.

