

Due to the relatively high chlorine and bicarbonate results in the EFMA Primary Network reservoirs, EDIA recommends some general measures with the objective of reducing the presence of these elements in the water bodies.

Higher bicarbonate results occur in practically all EFMA reservoirs and chlorides are higher in the reservoirs of the Ardila Subsystem, mainly in the Amoreira and Pias.

Table 1 – Main problems of the presence of chlorides and bicarbonates in high concentrations in irrigation water

Chlorides	Bicarbonates
<ul style="list-style-type: none"> • Main hinder the absorption of some nutrients by plants, which affects the productivity of crops. • The accumulation of chlorides in the leaves (through the roots or due to sprinkling) can cause burns on the leaves or lead to their fall. • The presence of excess chlorides in soils may cause degradation of their structure. • They can cause corrosion problems of the pipes. 	<ul style="list-style-type: none"> • May hinder the absorption of some mineral nutrients by plants, which affects crop productivity. This situation can occur mainly in soils with low mineral nutrients and high pH. • Sprinkler irrigation can lead to white spots on leaves. • They can cause drip clogging of drip irrigation systems, due to calcium precipitation.

The following are some measures that can be taken to reduce the problem of the use of a water of irrigation with high concentrations of salts and to diminish the concentrations of salts in the reservoirs:

- Use of fertilizers which do not contain chlorides, such as potassium sulphate.
- Use cultures that are more tolerant to chlorides.
- Avoid sprinkler irrigation in hot weather and windy periods, which is when water evaporation is faster.
- Use irrigation methods that avoid "spraying" with very fine water droplets or use watering methods that do not wet the plants, such as drip irrigation.
- Avoid mild irrigation because it can increase salt concentrations in soil surface layer.
- Ensure adequate drainage of agricultural land.

The water quality data of reservoirs are published in the "Water Quality Report for Watering":

<http://www.edia.pt/en/what-we-do/assistance-to-farmers/quality-water-for-irrigation/203>

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