



Aquarium plants

Guide for lush and
healthy plants in the aquarium



Aquarium plants

Aquariums are a world of fascination unto themselves. Not only do they exert a harmonious and calming effect, but they also offer an almost endless variety of design options.

Healthy, flourishing, rich green aquatic plants bring aquariums to life and turn them into appealing eye-catchers.

Below, you can find out more about the roles that plants play in aquariums, the nutrients and environmental conditions they require to live, the various planting options as well as appropriate plant care measures.

Function of aquarium plants

Aquarium plants come in a variety of shapes and colours, giving you a whole host of different ways of designing your aquarium in harmony with nature and with individual touches. Plants often show off the wealth of colours of the creatures living in the aquarium to their best advantage.

Without a diversity of plants, aquariums would look bare, and fish would not have enough hiding places, rest areas or even spawning sites and may be exposed to a greater degree of stress.

Plants have important biological functions and thereby contribute to healthy aquarium water.

One of these tasks involves enriching water with oxygen, which is vital for the aquarium inhabitants.

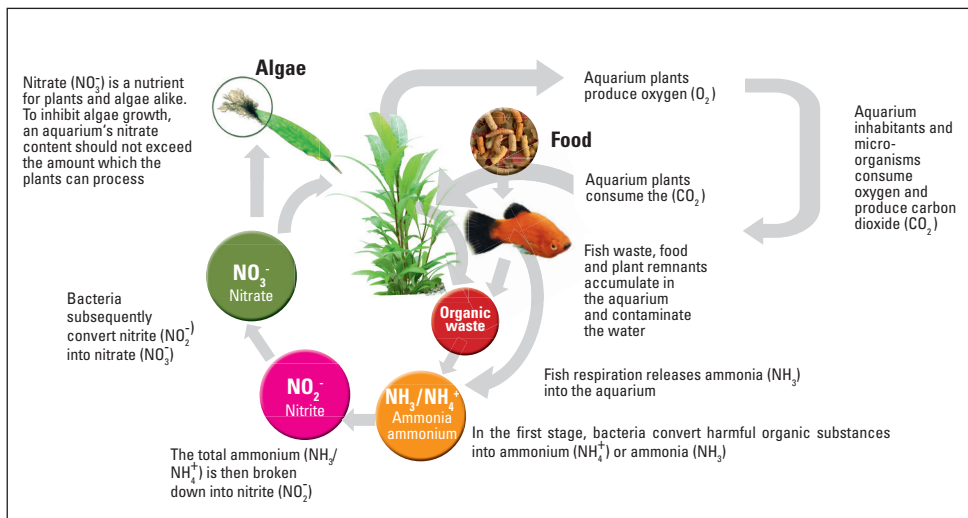
Aquatic plants also help to reduce nitrogen compounds, including the algae nutrient nitrate (NO_3^-). As such, plants naturally prevent algae growth and are indispensable when setting up a new aquarium.

Furthermore, fish and invertebrates tirelessly remove protozoa and algae from the leaves and use them as a source of food.

Advice: During photosynthesis, energy sources such as carbohydrates are created in the green leaves of plants by means of light energy from water (H_2O) and carbon dioxide (CO_2). This process releases oxygen (O_2). In daylight, plants consume carbon dioxide and release oxygen, whereas in the dark this reaction is reversed, i.e. plants and fish consume oxygen and give off CO_2 . This process is referred to as respiration. Because plants consume oxygen in the dark, you should also aerate your aquarium using an air pump, such as the **Tetra APS**.

The cleaning process in an aquarium

The following image depicts the cleaning process (nitrogen cycle) in an aquarium, in which aquarium plants also play an important role:



Overview of the advantages of live plants:

- Rich green, lush and healthy plants are a visual highlight
- Plants offer many decoration and design options
- They accentuate the abundant colours of the creatures living in the aquarium
- inhabitants can use plants as places to shelter and hide as well as spawning sites
- Live plants promote an optimum biological balance in the aquarium
- Photosynthesis of the plants ensures a constant supply of oxygen
- Plants help to break down harmful substances
- Natural prevention of algae growth
- Beneficial microorganisms accumulate on plants and serve as a source of food

Types of plants

Aquarium plants can basically be divided into **fast-growing** and **slow-growing** types. The faster a plant grows the more nutrients it absorbs. This automatically increases the decomposition of harmful substances, which also restricts algae growth. When setting up a new aquarium, many fast-growing plants should be used in order to help reduce the nitrate value and increase the oxygen content of the water. This creates

an environment conducive to the colonisation of vital microorganisms and in which newly introduced fish feel instantly at home.

Plants that do not tend to grow fast are often particularly decorative. Their shapes and colours can be used for creating special touches.

Aquatic plants can also be divided into different types, according to their position in the aquarium: Small, preferably decorative **foreground plants** are recommended for planting in the front part of the tank, as these do not block the view into the aquarium. Examples include pygmy chain sword plant (*Echinodorus tenellus*) or water trumpet (*Cryptocoryne willisii*).


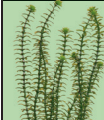








Middle area plants should be conspicuous and catch the onlooker's eye. Examples of suitable species include broadleaf anubias (*Anubias barteri*) and red melon sword (*Echinodorus barthii*).

Tall stem plants can be used as **background plants**, e.g. waterweed (*Anacharis*) or hygrophylla (*Hygrophila corymbosa* "Siamensis 53 B").

Ideal **floating plants** include, for example, hornwort (*Ceratophyllum*) or South American spongeplant (*Limnobium laevigatum*).



The following table provides examples of the most popular aquarium plants:

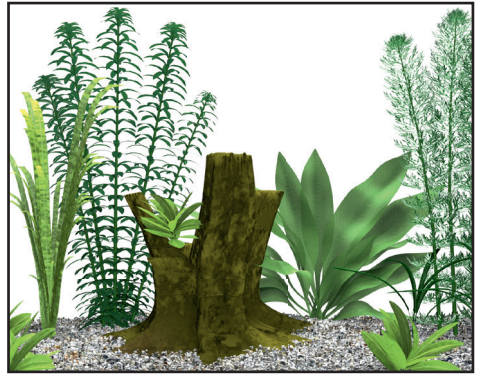
Image	Plant	Lat. name	Origin	Need for light	Temperature	Special features	Use in the aquarium
	Amazon sword plant	<i>Echinodorus bleheri</i> (bleherae)	Columbia	High	22 - 28°C	Root fertilisation; fast-growing	Individual or group planting; Background plant
	Waterweed	<i>Anacharis</i>	Argentina	High	14 - 22°C	Do not keep too warm; fast-growing	Group planting; Middle/back-ground plant
	Ambulia	<i>Ambulia</i>	South East Asia	High	22 - 28°C	Preferably full overhead light and short lamp distance; fast-growing	Group planting; Middle/back-ground plant
	Red Ludwigia	<i>Ludwigia repens</i> „Rubin“	North America	Mode-rate to very high	15 - 25°C	Red colouring intensifies with increased lighting; fast-growing	Group planting; Middle/back-ground plant
	Green Cabomba	<i>Cabomba caroliniana</i>	Tropical America	High to very high	20 - 25°C	Stem plant; fast-growing	Group planting; Middle/back-ground plant
	Water-milfoil	<i>Myriophyllum</i>	Worldwide	High	22 - 28°C	Carbon dioxide fertilisation; fast-growing	Group planting; Middle area plant
	Hygrophila	<i>Hygrophila corymbosa</i> “Siemens 53 B”	South East Asia	High	28°C	Stem plant; fast-growing	Group planting; Middle/back-ground plant
	Roseafolia	<i>Alternanthera reineckii</i> “Pink”	Unknown	Medium to high	24 - 27°C	Nutrient-rich substrate; fast-growing	Group planting; Middle/back-ground plant
	Broadleaf anubias	<i>Anubias barteri</i> var. <i>barteri</i>	Africa	Mode-rate	22 - 26°C	Particularly suitable for cichlid aquariums; Slow-growing	Middle area plant
	Water trumpet	<i>Cryptocoryne wendtii</i> „green“	Sri Lanka	Mode-rate	22 - 26°C	Shady location; fast-growing	Group planting

Setting up your aquarium

To make it easier to assemble and set up your aquarium, it may be useful to come up with a sketch in advance featuring all plants and decorative elements



View from above



Front view

- Pieces of wood for a natural look
- Stones offer hiding places and create emphasis
- Background plants can conceal technical equipment
- Middle area plants are visual highlights when they grow together with the decor
- Foreground plants should not obstruct the view into the aquarium

Planning your aquarium setup

Aspects to bear in mind:

- The plants should be positioned according to their light requirements and size (see chapter Types of plants)
- Fish should have enough room to swim
- Technical equipment can be hidden by plants, if so desired

Substrate

The substrate is made up of two layers:

- 1st layer: approx. 2-4 cm of the **Tetra CompleteSubstrate** base material concentrate
- 2nd layer: approx. 4 cm natural-coloured, washed aquarium gravel with a grain of 2-4 mm mixed with **Tetra InitialSticks** fertiliser sticks
- In total, the substrate should be approx. 6-8 cm deep, depending on the size of the aquarium

Advice: the substrate should not be more than 6 cm deep in small aquariums.

NB: fill the back of your aquarium with more substrate than the front. As such, dirt and deposits will collect in the front and can be removed more easily with a gravel cleaner, such as the **Tetra GC**.

Decor and equipment

- Add your chosen decorative elements – such as stones, roots or ornaments – to the aquarium on the basis of the sketch you made earlier
- Place the required equipment – such as a filter, heater, air pump, etc. – into the tank (do not connect the power plug yet!)

Fill with water

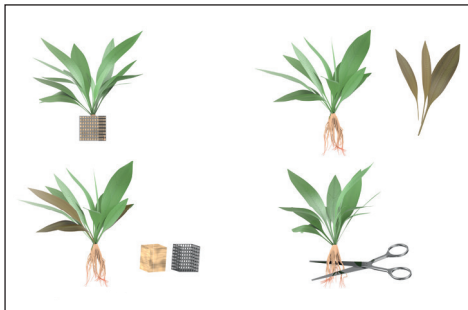
- Fill about half of the aquarium with water

NB: if you pour the water onto a plate placed on the substrate you will avoid disturbing the substrate.

Aquarium plants

Preparing the plants:

- Rinse off any dirt, algae and snail eggs stuck to the plants with lukewarm water
- Remove any rotten or dead leaves, lead or rock wool from the plants and unpack them from any plastic pots
- Cut off any old or black roots and trim the roots to around 2 cm in total

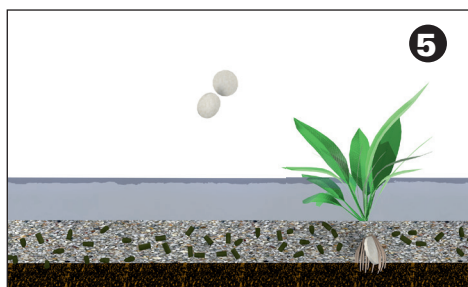
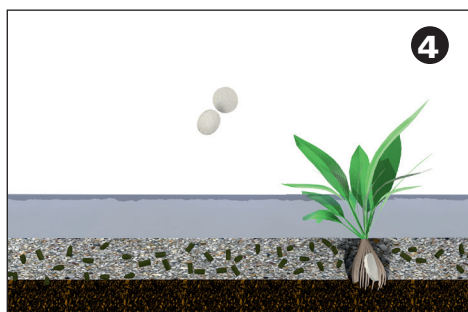
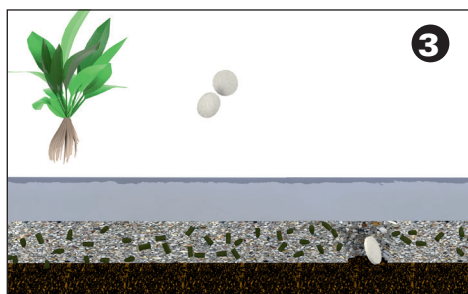
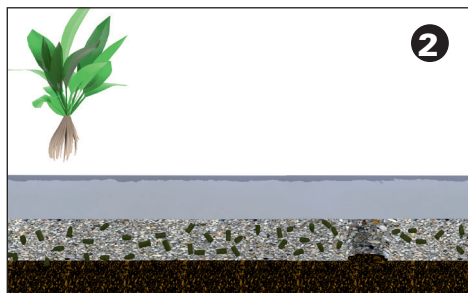


Advice: make sure to root the plants according to their

Inserting the plants:

- Make a hole in the prepared substrate with your fingers to protect the plant roots
- To make the roots grow quickly and safely, you should apply a root fertiliser, such as **Tetra PlantaStart**
- If you place several plants of the same type next to one another, you should leave around 1 to 2 cm between each plant (group planting)
- Remove the lower leaves from stem plants so that they do not rot in the substrate and compromise the water quality
- Close up the hole you made so that the plant is held in place

NB: you can also use tweezers to insert the plants.



Kick-starting your aquarium

- Now fill the rest of the tank with water
- Switch on the technical equipment
- Turn the tap water into fish-friendly aquarium water with, for example, **Tetra AquaSafe**
- To be able to introduce fish into the aquarium straight away, you should also add live bacteria to the water, such as those contained in **Tetra SafeStart**. This ensures a safe start for your aquarium

The Tetra set-up system

When first planting an aquarium, the „sterile“ gravel needs to become a fertile substrate and the plants require an optimum supply of nutrients right from the start. Tetra has come up with a special set-up system for this, comprising the following three products:

Tetra CompleteSubstrate is a ready-to-use base material concentrate. It contains essential micronutrients and natural peat. This concentrate offers stability for plant roots and optimum long-term care for plants. **Tetra Complete Substrate** also provides a habitat for microorganisms and encourages them to colonise faster.

These microorganisms are crucial for an ideal biological balance in the aquarium. **Tetra CompleteSubstrate** is the perfect foundation for successful plant care and promotes lush, healthy plant growth without clouding the water.

Tetra InitialSticks are long-term root fertilisers containing natural ingredients such as humus and iron. **Tetra InitialSticks** are mixed into the gravel, which they enrich with essential nutrients over the long term. To maintain a fertile substrate, we recommend re-fertilising with **Tetra InitialSticks** on an annual basis. All you have to do is evenly distribute the sticks throughout the gravel.

Tetra PlantaStart special fertiliser tablets encourage rapid root formation, thus ensuring that aquarium plants grow well in the substrate. The tablets are placed directly at the roots, which strengthens newly planted vegetation.



Nutrients for aquarium plants

Plants require various nutrients in order to develop healthily and to flourish.

The basic nutrient, **carbon dioxide (CO_2)**, is mainly produced by the bacterial decomposition of fish waste, plant and food remains and as a result of fish respiration. The bacterial decomposition of organic materials also releases various nitrogen compounds which plants use as nutrients, e.g. to form proteins. Plants are able to absorb nitrogen, **nitrate (NO_3^-)** and **ammonium (NH_4^+)**.

Another key element for generating energy in plant cells is **phosphate (PO_4^{3-})**. Phosphate is vital for the metabolism of all aquarium inhabitants, and for plants, it is decisive for growth. Thus, when little phosphate is available, plant growth is slow.

Phosphate and nitrate are constantly discharged into the aquarium by means of food and fish waste and are therefore always available in sufficient quantities. As a result, aquariums stocked with fish generally do not require fertilisation with these nutrients. If there is a surplus of phosphate and nitrate that the aquarium plants are unable to consume, algae use these nutrients and spread rapidly.

Tetra plant fertilisers therefore contain no phosphate and nitrate.

Iron (Fe) is one of the most important building blocks for enzymes. It plays a role in many enzymatic reactions of chlorophyll synthesis and is therefore crucial for photosynthesis. Iron is the trace element required in the greatest quantity, which means it is often counted among the macronutrients. Iron should be added to the aquarium regularly as a fertiliser, as it is not otherwise present in the aquarium.

Like iron, the trace element **manganese (Mn)** is also a component of many enzymes and involved, among other things, in electron transport during photosynthesis. As is the case with iron, a lack of manganese also reduces the production of chlorophyll and can cause plants' leaves to turn yellow (chlorosis) or prompt a decline in growth and root formation.

Another essential nutrient for photosynthesis and plant growth is **potassium (K)**. Like phosphate and nitrate, potassium enters the water by means of the food, but does need to be added to aquariums containing only plants or a small number of fish. **Calcium (Ca)** and **magnesium (Mg)** are essential nutrients for sustaining enzyme activity. Calcium is also necessary for

the formation of cell membranes. Magnesium is a key building block of chlorophyll and therefore essential for photosynthesis. Calcium and magnesium are usually present in sufficient quantities in water of medium hardness.

The trace element **boron (B)** is important for the transport of nutrients and therefore for the various metabolic processes in plant cells. It influences the proper functioning of cell membranes as well as the absorption of iron and nutrients such as calcium, magnesium, potassium and phosphate. Therefore, a boron deficiency results in reduced plant growth.

Other key trace elements for aquarium plants include **zinc (Zn)**, **molybdenum (Mo)**, **vanadium (V)**, **sulphur (S)**, **copper (Cu)**, **nickel (Ni)** and **cobalt (Co)**. These are required in very low amounts only.

The **Tetra PlantaMin** and **Tetra PlantaPro** fertilisers contain an ideal combination of all the essential nutrients and should be added to the aquarium water regularly so as to ensure thriving plant growth.

The amount of nutrients consumed and required always depends on the individual aquarium and is influenced by the following factors:

- Light conditions
- Surface movement of the water
- Filtering
- Oxygen content
- Stock of fish and plants
- CO_2 content
- Plant growth
- Temperature



Caring for your plants

If you take regular care of your plants, you are already doing a great deal to ensure good water quality and optimum living conditions in your aquarium.

Many aquarists avoid fertilising their aquatic plants for fear of algae. However, properly fertilised aquarium plants actually prevent algae, because the faster and lusher the plants grow, the more they can free the water of harmful substances and produce oxygen.

Natural fertilisation alone is insufficient

The most important basic nutrient for aquatic plants is carbon dioxide (CO_2), which is exhaled by aquarium inhabitants and generated from food and plant remnants. While the decomposition of fish waste supplies the aquarium with sufficient levels of nitrate (NO_3^-) and phosphate (PO_4^{3-}), you need to add other essential nutrients to the water in order to avoid the following deficiencies:

- Yellow leaves (chlorosis)
- Stunted or interrupted plant growth
- Pale, colourless plants
- Plants which die off

Plant nutrients in the form of fertilisers are especially important in aquariums containing plants only. If there are no fish, and as a result

no food or waste, plants cannot use the resulting substances as nutrients.

Types of fertiliser

Aquatic plants can absorb nutrients through their leaves or roots.

Leaf fertilisers

Many aquatic plants absorb the majority of the nutrients they require through their leaves. Iron is particularly important for this process. It promotes the formation of chlorophyll, which is responsible for photosynthesis. Liquid fertilisers are very simple means of supplying plants with nutrients via their leaves and ensuring lush, deep green plants.

Root fertilisers

Directly fertilising the roots promotes intensive plant growth and strong root formation. Most root fertilisers come in tablet form and are placed directly in the substrate next to the roots so that their nutrients specifically reach the roots and can be absorbed by the plants.

NB: when buying plants, ensure that they have no growth defects. Plants exhibiting weak growth, brown patches or many yellow leaves are often unhealthy.



The Tetra basic fertiliser system

Tetra fertilisers are complementary and contain everything plants need for healthy growth. They are most effective when used in combination. The Tetra basic fertiliser system comprises various products enabling you to supply your plants directly with nutrients and meet the specific fishkeeping requirements:

Tetra PlantaMin is an intensive liquid fertiliser with depot effect which provides aquatic plants with all essential nutrients, including iron and potash, for up to four weeks. It contains no phosphate or nitrate and encourages lush, healthy plant growth. **Tetra PlantaMin** features leaf-active nutrient complexes and is particularly suitable for plants which absorb nutrients through their leaves. The fertiliser is simply added to the water, where its effect comes into play. The dosage on a monthly basis makes it very easy to use.

Tetra PlantaPro is also an intensive liquid fertiliser. It is suitable for plants which absorb nutrients through their leaves. **Tetra PlantaPro**

is to be used once per week and contains key minerals, trace elements and vitamins that are used up particularly quickly in the aquarium or are only stable in the aquarium for a short time. This prevents nutrient deficiencies, without the addition of any phosphate or nitrate.

You are recommended to use both **Tetra PlantaMin** and **Tetra PlantaPro** if your aquarium is particularly heavily planted. This ensures that your plants are intensively fertilised with iron and specifically fertilised with vital substances.

Tetra Crypto in handy tablet form releases its contents exactly where the plants can use them directly. The tablets are simply crushed and pushed into the substrate near the roots. Re-fertilisation is recommended with every partial water change. **Tetra Crypto** contains iron in a form available to plants for a prolonged period as well as all essential trace elements. These root fertiliser tablets are free of phosphate and nitrate, encourage healthy, intensive plant growth and boost root formation.



CO₂ fertiliser

Carbon dioxide (CO₂) is one of the most important plant nutrients as it is necessary for photosynthesis. If there is a shortage of CO₂, unsightly calcium deposits build up on the leaves and plant growth is stunted, culminating in plants dying. Algae can multiply as a result of the poor condition of the plants and the resulting surplus of nutrients.

***Advice:** During the carbon dioxide fertilisation the aquarium should not be aerated, otherwise the fertiliser will not be as effective. In the dark, the aeration is recommended.*

The optimum permanent concentration of CO₂ in aquarium water is between 5 and 15 mg/l, depending on the pH value. The CO₂ level can be checked using the **Tetra Test CO₂** or determined on the basis of the pH value and the carbonate hardness level (KH). If you have determined the water values with the **Tetra Test pH** and **Tetra Test KH**, you can use the following table to establish the CO₂ content:

KH (°dH)		CO ₂ -concentration in mg/l														
1	347	108	34	19	11	6	3	2	1	1	0,3	0,2	0,1	0,1	0,1	0,1
2	669	209	66	37	21	12	7	4	2	1	0,7	0,4	0,2	0,1	0,1	0,1
3	981	308	97	55	31	17	10	5	3	2	1,0	0,5	0,3	0,2	0,1	0,1
4	1284	404	128	72	40	23	13	7	4	2	1,3	0,7	0,4	0,2	0,1	0,1
5	1581	498	157	88	50	28	16	9	5	3	1,6	0,9	0,5	0,3	0,1	0,1
6	1873	590	186	105	59	33	19	10	6	3	1,8	1,0	0,6	0,3	0,2	0,2
7	2159	681	215	121	68	38	21	12	7	4	2,1	1,2	0,7	0,4	0,2	0,2
8	2440	770	243	137	77	43	24	14	8	4	2,4	1,3	0,7	0,4	0,2	0,2
9	2718	858	271	152	86	48	27	15	9	5	2,7	1,5	0,8	0,5	0,2	0,2
10	2992	944	298	168	94	53	30	17	9	5	3,0	1,6	0,9	0,5	0,3	0,3
11	3262	1030	325	183	103	58	33	18	10	6	3,2	1,8	1,0	0,5	0,3	0,3
12	3529	1114	352	198	111	63	35	20	11	6	3,5	1,9	1,1	0,6	0,3	0,3
13	3793	1198	379	213	120	67	38	21	12	7	3,7	2,1	1,1	0,6	0,3	0,3
14	4054	1280	405	227	128	72	40	23	13	7	4,0	2,2	1,2	0,7	0,4	0,4
15	4312	1362	430	242	136	76	43	24	14	8	4,2	2,4	1,3	0,7	0,4	0,4
16	4568	1443	456	256	144	81	46	26	14	8	4,4	2,5	1,4	0,8	0,4	0,4
17	4820	1523	481	271	152	86	48	27	15	8	4,7	2,6	1,5	0,8	0,4	0,4
18	5072	1602	506	285	160	90	51	28	16	9	5,0	2,8	1,5	0,9	0,5	0,5
19	5320	1681	531	297	168	94	53	30	17	9	5,2	3,0	1,6	0,9	0,5	0,5
20	5566	1758	556	313	176	99	56	31	17	10	5,5	3,0	2,0	1,0	0,5	0,5
pH-value	5,00	5,50	6,00	6,25	6,50	6,75	7,00	7,25	7,50	7,75	8,00	8,25	8,50	8,75	9,00	

The values are based on a water temperature of 25°C. For other temperatures, the values differ only slightly from those indicated in the table. Recommended CO₂, pH and KH values are marked in white.

Tetra CO₂ fertiliser

The following Tetra products guarantee an optimum carbon dioxide level in your aquarium:

Tetra CO₂ Plus is a liquid fertiliser which biological releases CO₂ up to one week. By weekly usage it can very easily and conveniently meet the CO₂ needs of your aquarium so as to promote strong, healthy plant growth.

Tetra CO₂ Optimat, together with the **Tetra CO₂ Depot** refill bottle, provide optimum CO₂ fertilisation for aquariums with a capacity of up to 100 litres. The device is easy to install and use. At the touch of a button you can enrich your aquarium with CO₂ daily and with ease.

Tetra CO₂ products do more than simply care for your plants. By boosting plants' photosynthesis activity, they indirectly increase the oxygen supply in the water and keep the pH level within a favourable range.

The right lighting

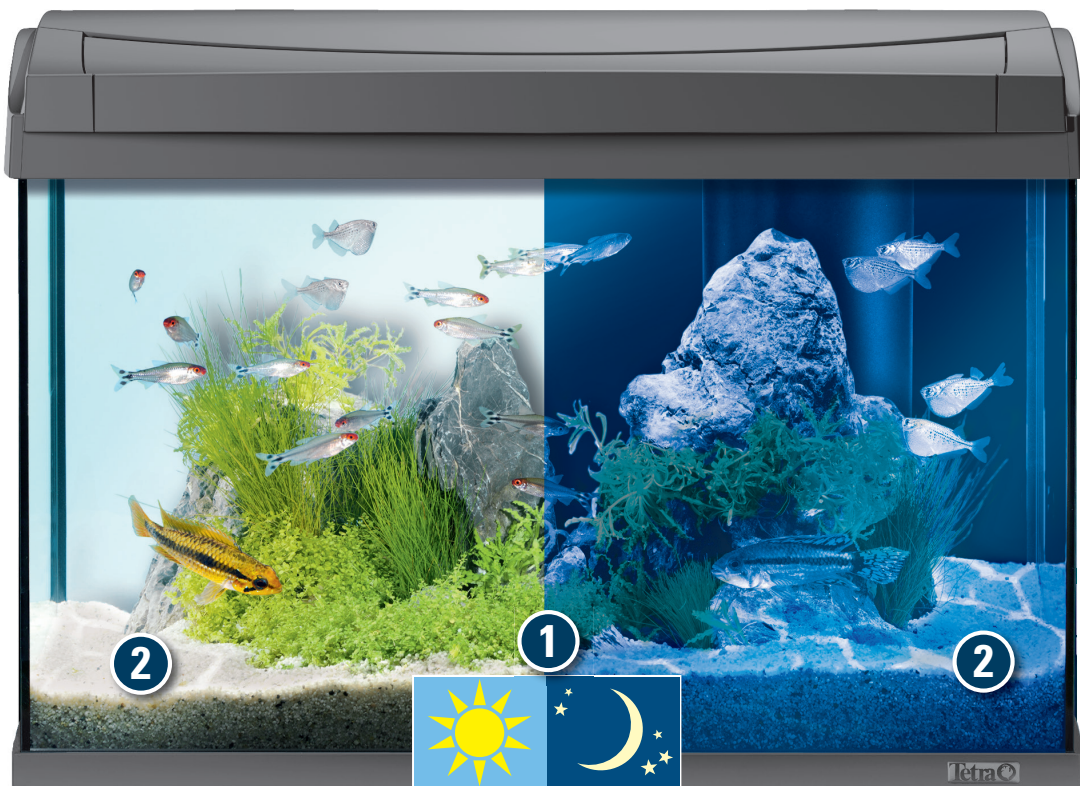
The lighting of an aquarium is crucial for healthy plants. Light has a decisive effect on plant growth and photosynthesis as well as on the rhythm of life of the aquarium inhabitants. If the light source is wrong or too weak, photosynthesis is inhibited and plants stop growing sufficiently. Algae problems can also be due to incorrect lighting.

Lighting tips

- Avoid exposing the aquarium to direct sunlight, as this stimulates algae growth
- Maintain consistent daily lighting times of 10 to 12 hours

- Take into account the different light conditions required by each type of plant
- Use pure white light. When using two fluorescent tubes, preferably use one warm white and one cool white bulb
- For consistent light intensity, replace lights every six to twelve months

NB: use a timer to make it easier to stick to the recommended lighting time.



The LED lighting in the **Tetra AquaArt LED Discovery Line** aquarium gives you a fascinating insight into life under water and shows fish and plants in the best possible light thanks to the built-in switch for day/nightlight mode.

When aquarium plants become sick

If the biological balance in the aquarium is disrupted, not only the aquarium inhabitants can become sick, but also the plants. The following table provides an overview of the symptoms and causes of frequent plant problems as well as the action to be taken:

	Symptoms	Causes	Remedy and prevention
1	Over-stretched growth with sparse leaves and pale plant colours	<ul style="list-style-type: none"> • Light conditions do not meet plants' needs • Insufficient fertilisation 	<ul style="list-style-type: none"> • Maintain 10-12 hour lighting period • Try changing light source • Thin out plants to optimise light exposure • Iron fertilisation with Tetra Crypto, Tetra PlantaMin, Tetra PlantaPro
2	Growth arrest or noticeable damage to plants	<ul style="list-style-type: none"> • Various reasons, e.g. aquarium watertoo alkaline • Nutrient deficiency 	<ul style="list-style-type: none"> • Check pH value with Tetra Test pH • Partial water change • Fertilise with Tetra PlantaMin and Tetra PlantaPro
3	Growth disturbance and chalk deposits on plants	<ul style="list-style-type: none"> • Lack of CO₂ • Water too hard • pH value too high 	<ul style="list-style-type: none"> • CO₂ fertiliser required • Reduce water hardness level with Tetra pH/KH Minus then stabilise with Tetra EasyBalance
4	Slow growth, pale and yellowish green leaves	<ul style="list-style-type: none"> • Nutrient deficiency (iron) • Incorrect lighting 	<ul style="list-style-type: none"> • Adjust lighting • Check iron value with Tetra Test Fe • Add iron by using Tetra PlantaMin or Tetra PlantaPro
5	Severe leaf damage, especially on young leaves, or rotting roots	<ul style="list-style-type: none"> • Inappropriate, compacted or poorly aerated substrate 	<ul style="list-style-type: none"> • Change the water • Unpleasant odour from the substrate indicates a lack of oxygen • Renew or loosen up substrate and enrich with nutrients • Regularly remove deposits (mulm) with the Tetra GC Gravel Cleaner • Fertilise with Tetra PlantaMin and Tetra PlantaPro
6	Holes in the leaf surface, leaves eaten away	<ul style="list-style-type: none"> • Damage to foliage by snails or plant-eating fish 	<ul style="list-style-type: none"> • Remove snail eggs from any newly acquired plants • Use sturdy plants • Feed herbivorous creatures with Tetra Phyll or Tetra Tips • Remove snails
7	Algae coating on leaves	<ul style="list-style-type: none"> • Surplus of nutrients (nitrate, phosphate) 	<ul style="list-style-type: none"> • Carry out partial water changes more frequently • Use fast-growing plants, reduce levels of nitrate and phosphate by using Tetra EasyBalance, Tetra NitrateMinus or Tetra NitrateMinus Pearls • Use anti-algae agents such as Tetra AlguMin or Tetra AlgoStop depot • Check water values with Tetra Test 6in1 • Fertilise with Tetra PlantaMin and Tetra PlantaPro

Guide to a planted aquarium

Tetra products make it easy to maintain a healthy and well planted aquarium. The following list recaps the most important aspects:

- When setting up an aquarium, add an 6-8 cm substrate comprising one layer of **Tetra CompleteSubstrate** mixed with **Tetra InitialSticks** and one layer of just gravel
- Make sure you position your plants correctly and use the **Tetra PlantaStart** root fertiliser
- When setting up your aquarium and changing the water, use **Tetra AquaSafe** to bind heavy metals which are harmful to fish
- Use **Tetra SafeStart** to be able to introduce fish into your newly set up tank immediately, or with every filter change
- Avoid adding too many fish and herbivorous fish, or feed them with **Tetra Phyll** or **Tetra Tips**
- If your aquarium is stocked with fish and a large number of plants, you should install a **Tetra APS** air pump to gently supply the aquarium with extra oxygen overnight
- Fertilise your plants regularly with **Tetra PlantaMin**, **Tetra PlantaPro** or **Tetra Crypto** – a combination of all three is ideal
- If necessary, install the **Tetra CO₂ Optimat** to give your plants an adequate supply of CO₂, or use **Tetra CO₂ Plus** in liquid form on a weekly basis
- Use a light source that encourages plant growth and meets the plants' requirements, such as in the **Tetra AquaArt** aquariums
- Test the water values of your aquarium regularly using the **Tetra Test** range, in order to detect and treat deficiencies early on

The care system for flourishing and healthy aquatic plants

CO₂ fertiliser:

Tetra CO₂ Plus,
Tetra CO₂ Optimat,
Tetra CO₂ Depot,
for a targeted CO₂ supply for plants, promoting strong, healthy growth

Activating the substrate:

Tetra InitialSticks for a sustainable nutrient supply and to activate microorganisms in the gravel

Base material concentrate:

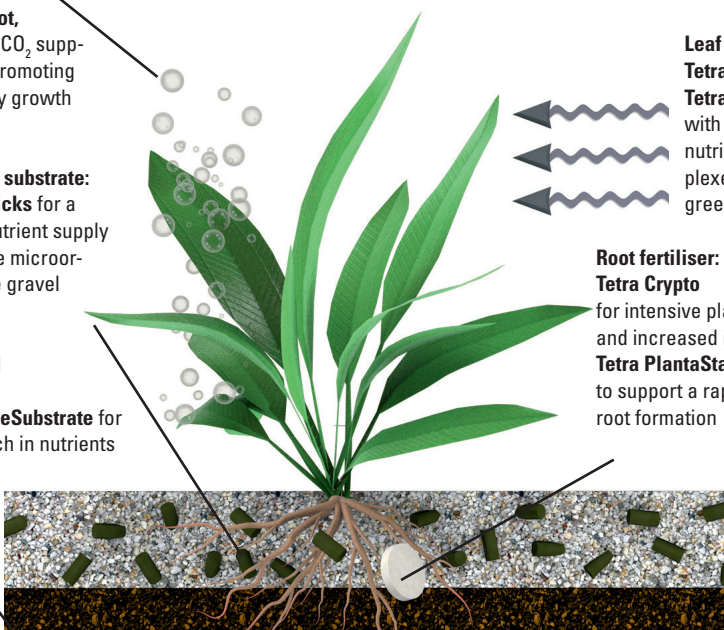
Tetra CompleteSubstrate for a substrate rich in nutrients

Leaf fertilisers:
















Tetra PlantaMin,
Tetra PlantaPro
with leaf-active nutrient complexes for rich green plants

Root fertiliser:


Tetra Crypto
for intensive plant growth and increased root formation
Tetra PlantaStart
to support a rapid root formation




An overview of Tetra plant care products

System	Product		When to use	Type
Specialfertilisers new aquariums		Tetra CompleteSubstrate Substrate concentratae with log-term fertilisation for all freshwater aquariums	For new aquariums	Root fertiliser
	 	Tetra InitialSticks Turns gravel into fertile substarte, annual activation of aquarium substrates	When setting up new aquariums; repeat annually	Root fertiliser
	 	Tetra PlantaStart Iron intensive fertiliser for deep green, thriving plants	When introducing new plants or transferring existing ones	Root fertiliser
Basic fertilisers	 	Tetra PlantaMin Iron intensive fertiliser for deep green, thriving plants	Once per month	Leaf fertiliser
	 	Tetra PlantaPro Weekly complete fertiliser with trace elements and vitamins for healthy plant growth	Once per week	Leaf fertiliser
	 	Tetra Crypto Monthly root fertiliser tablets Intensive fertilisation directly through the roots	Once per month; each time the water is changed	Root fertiliser
CO ₂ fertilisers	 	Tetra CO₂ Plus Liquid carbon dioxide fertiliser; a fast and easy means of supplying the most important plant nutrient, CO ₂	Once per week	Leaf fertiliser
	 	Tetra CO₂ Optimat / CO₂ Depot The handy complete CO ₂ set for healthy, lush plant growth	Permanently	Leaf fertiliser


liquid



tab



stick



Advice: for lush plant growth, we recommend using both **Tetra PlantaMin** and **Tetra PlantaPro**.