The diagram on the right illustrates the concept of diffusion pressure and the relationship between the distance from the root and the concentration of the nutrient. The equation for the diffusion pressure is given by:

\[ P = \frac{q}{d^2} \]

Where:
- \( P \) is the diffusion pressure (Pa)
- \( q \) is the amount of nutrient diffusing (mol/s)
- \( d \) is the distance from the root (m)

The text on the left explains the process of diffusion in root systems and how the concentration gradient affects the movement of nutrients. It discusses the importance of diffusion pressure and how it influences the uptake of nutrients by the root system. The text also highlights the role of the root surface area in maximizing the efficiency of nutrient absorption.

In summary, the diagram and text together provide a comprehensive understanding of how diffusion pressures and concentration gradients work together to facilitate the efficient transport of nutrients from the soil to the root system of plants.
The effect of soil compartmentation on root growth and root contact area.

**Fig. 5.** Effect of soil compartmentation on root growth and root contact area.

- **June-July-August**
- **September**
- **October**
- **November**
- **December**
- **January**
- **February**
- **March**
- **April**
- **May**

The results show that root growth was reduced by soil compartmentation, leading to a decrease in root contact area. This effect was most pronounced in the late summer and early fall months, where root growth was less restricted. Overall, the season-wide effect of soil compartmentation was noticeable, with a reduction in root growth and contact area compared to untreated soil.
Figure 7. Location of different soil fractions in the rhizosphere

Changes in soil pH are described below, having a broad

The data show that, when the pH is maintained in the range of

The results indicate that root growth is influenced by the

The interaction with functional factors is critical in the

The effects of soil pH on root growth can be summarized as follows:

- **Alkaline soils** (pH > 7): Root growth is enhanced, especially in sandy soils.
- **Neutral soils** (pH 6.5-7.5): Optimal root growth is observed.
- **Acid soils** (pH < 6.5): Root growth is inhibited.

These findings highlight the importance of soil pH management in agricultural practices to promote healthy root growth.
Proposed reaction sequence between copper ion and

![Proposed reaction sequence](image-url)