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| **Trait** | **Foraging strategy** | **Influence of P starvation** | **Influence of microbial context** |
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| **Biomass allocation to the roots** | Exploration and exploitation | Higher root/shoot ratio in maize plants, indicating a more severe reduction of shoot growth than root growth (Mollier and Pellerin, 1999) | Increase in biomass allocation to the roots in *Brachypodium* plants inoculated with bacterial strains (Baudson et al. 2021) or exposed to bacterial volatiles (Delaplace et al. 2015); greater biomass allocation to aboveground parts in inoculated switchgrass due to a lagged response of the root system to inoculation (Wang et al. 2015) |
| **Rooting depth** | Exploration | Inhibition of primary root growth in *Arabidopsis* (Liu et al. 2013b); reduced depth of the root system in *Brachypodium distachyon* accessions (Ingram et al. 2012); increase of seminal root length in maize (Zhu et al. 2006) | Increase of the length of the seminal roots in inoculated wheat under low and high P treatments (Talboys et al. 2014); increased root depth of wheat inoculated with PSB[b] (Elhaissoufi et al. 2020) |
| **Phenology** | Exploration | Phenological delay in bolting and maturity in *Arabidopsis* due to a lengthened vegetative phase (Nord and Lynch 2008) | Increase of growth rate and shortened vegetative phase in inoculated *Arabidopsis* (Poupin et al. 2013); increase of growth rate in *Brachypodium distachyon* exposed to bacterial volatiles (Delaplace et al. 2015); increase of growth rate in inoculated wheat (Zaheer et al. 2019) |
| **Shoot-borne or basal roots** | Exploration | High number of basal root whorls and hypocotyl-borne roots in common bean (Rangarajan et al. 2018; Burridge et al. 2019; Miguel et al. 2013; Walk et al. 2006) | Precocious development of adventitious roots in *Brachypodium distachyon* exposed to bacterial volatiles (Delaplace et al. 2015); stimulation of adventitious root development in *Prunus* and hazelnut exposed to bacterial metabolites (Luziatelli et al. 2020) |
| **Branching intensity** | Exploration and exploitation | Increase in lateral root number and density in cotton (Zhang et al. 2021); slight reduction of root branching in maize (Mollier & Pellerin, 1999) | Increase in production of lateral roots in inoculated wheat under low and high P treatments (Talboys 2014); promotion of lateral root formation in *Arabidopsis* exposed to bacterial volatile organic compounds (Bailly et al. 2014, Li et al. 2021) |
| **Root growth angle** | Exploration | More vertical lateral root orientation in *Arabidopsis* (Bai et al. 2013); greater biomass production and tissue P content in common bean genotypes with shallow basal root growth angle (Miguel et al. 2015) | No information found |
| **Root hairs** | Exploitation | Increase of biomass production in common bean with long and dense root hairs (Miguel et al. 2015); Increase of length of root hairs in pasture species (Haling et al. 2016) | Increase of root hair number and length in inoculated *Arabidopsis thaliana* (Poupin et al. 2013, Spaepen et al. 2014, Sun et al. 2022); burst in root hair formation in inoculated *Dianthus caryophyllus* (Gang et al. 2018) |
| **Root diameter** | Exploration | Decrease of root diameter in barley (Heydari et al. 2019) and cotton plants (Zhang et al. 2021) | Increase of the average root diameter of switchgrass roots inoculated with a PGPR[a] strain (Wang et al. 2015) and wheat roots inoculated with PSB[b] (Elhaissoufi et al. 2020). |
| **Root etiolation (high specific root length)** | Exploration/exploitation | Increase of specific root length in *Trifolium* species (Becquer et al. 2021), three grassland forage species (Chippano et al. 2021) and cotton (Zhang et al. 2021) | Lower specific root length in *Arabidopsis* inoculated with a PGPR[a] strain (Wang et al. 2015); increase of specific root |

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| | | | length in sugarcane inoculated with PSB[b] under low available P level (Safirzadeh et al. 2019) |
| **Cortical senescence and aerenchyma** | Exploration | Reduced metabolic cost of root development by increasing the rate of cortical senescence (Schneider & Lynch, 2018) and the formation of aerenchyma in the root apex (Lynch & Ho 2005) | No information found |
| **Exudates** | Exploitation | Increase of organic anion exudation (mainly citrate and malate) in many plant species (Wang & Lambers 2020); high activity of acid phosphatase in the rhizosphere of field-grown wheat (Teng et al. 2013). | Contribution to/stimulation of the metabolic processes mobilizing P in the rhizosphere (acidification, organic anion and phosphatase release) (Richardson et al. 2009, Sun et al. 2022); stimulation of the exudation of sugars by wheat roots (Talboys et al. 2014); high turnover rates of exudates in soil due to consumption by microorganisms (Raymond et al. 2020) |
| **Number and activity of ion transporters in roots** | Exploitation | Up-regulation of the expression of high affinity P transporters under P deprivation in roots of rice (Jia et al. 2011), wheat (Liu et al. 2013a) and *Medicago falcata* (Li et al. 2011) | Reduction of the P uptake rate in inoculated wheat under low P level, associated with a lower expression of P transporters (Talboys et al. 2014); inoculation of wheat with PGPR[a], AMF[c] or both up-regulated the expression of P transporters in a field experiment (Saia et al. 2015); upregulation of the expression P transporters in inoculated *Arabidopsis* (Sun et al. 2022) |
| **Root-associated microbiome** | Exploitation and exploration | Recruitment of specific microbial communities by the plants and up-regulation of the expression of P-solubilization traits in PSM[d] (Raymond et al. 2020); increase of AMF[c] colonization rate in field-grown wheat (Teng et al. 2013) | Enhancement of P acquisition from rock phosphate in onion crop inoculated with mycorrhiza helper bacteria in combination with an AMF[c] (Sangwan & Prasanna 2021); improvement of plant growth due to interaction between bacteria and an AMF[c] (Muñoz et al. 2021) |
| **Cluster roots** | Exploitation | Increase in the surface of the root system and the release of organic acids, protons and acid phosphatases into the rhizosphere due to the formation of cluster roots (Müller et al. 2015; Gerke 2015) | Indirect enhancement of cluster root production through stimulation of the root system growth by rhizobacteria and direct enhancement of cluster root production through bacterial production of IAA[e] (Lamont et al. 2014) |

[a] PGPR, plant growth-promoting rhizobacteria; [b] PSB, phosphate solubilizing bacteria; [c] AMF, arbuscular mycorrhizal fungi; [d] PSM, phosphate solubilizing microorganism; [e] IAA, indole-3-acetic acid