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# Crop residue management: opportunities and challenges for soil fertility

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Interfaces

SUPPORTING PATHWAYS TO SUSTAINABLE LAND MANAGEMENT IN AFRICA

## 1. Context

- Enhancing soil health demands the combined application of organic and mineral inputs to maintain soil quality and boost crop yields (Vanlauwe et al., 2010).
- Effective soil fertilization typically involves applying 4–5 t/ha of organic fertilizer (Quansah, 2010).
- Crop residues represent a valuable source of organic fertilizer.
- Understanding farmers' perceptions and their use of crop residues is key to creating effective soil fertility interventions.

## 2. Methods

- Field observation
- Survey with 97 farmers in 3 districts of Northern Ghana (Savelugu, Tolon and Mion)

## 3. Insights

Figure 1: Crops cultivated

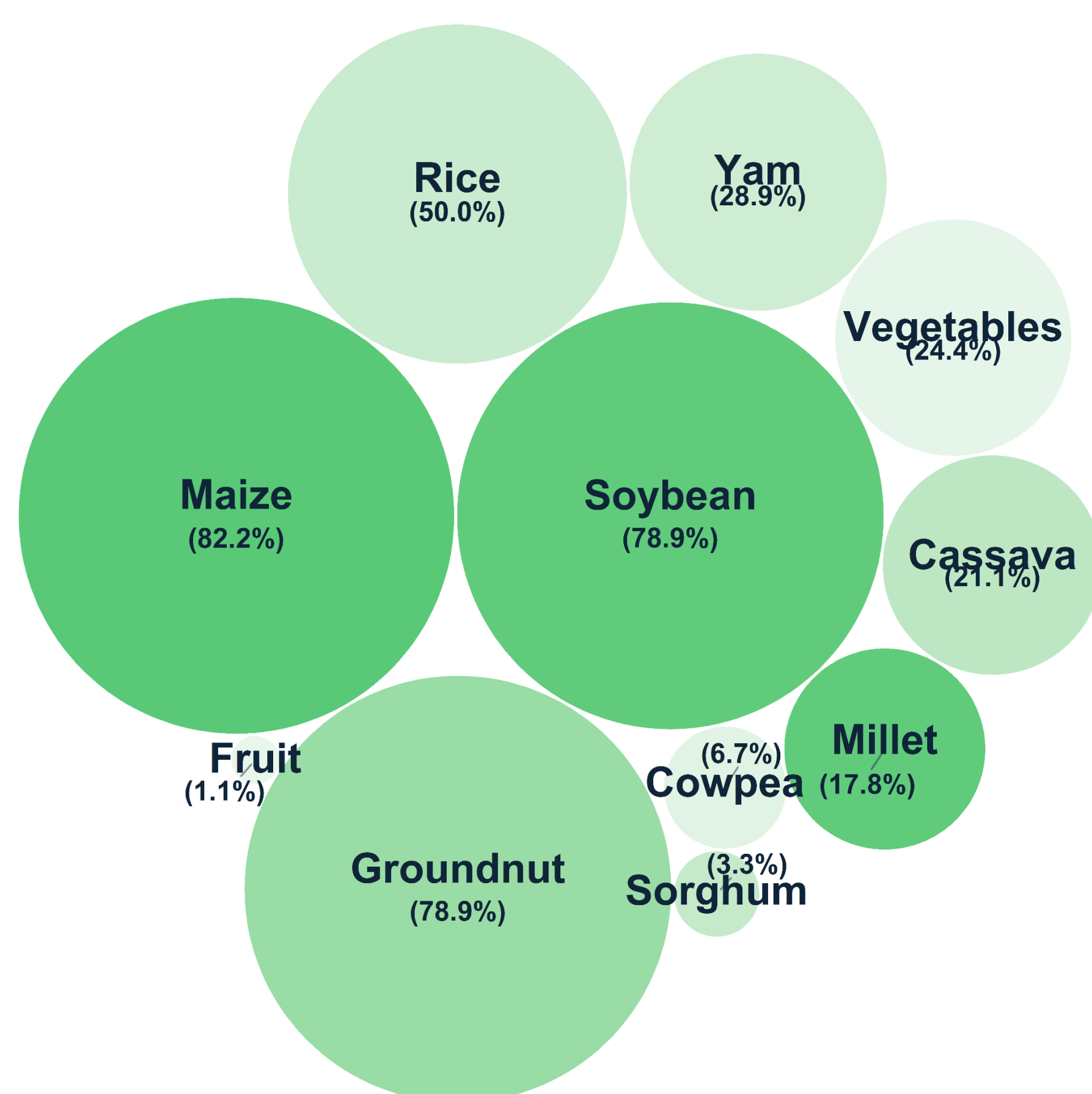


Figure 2: Crop residue management models and competing uses

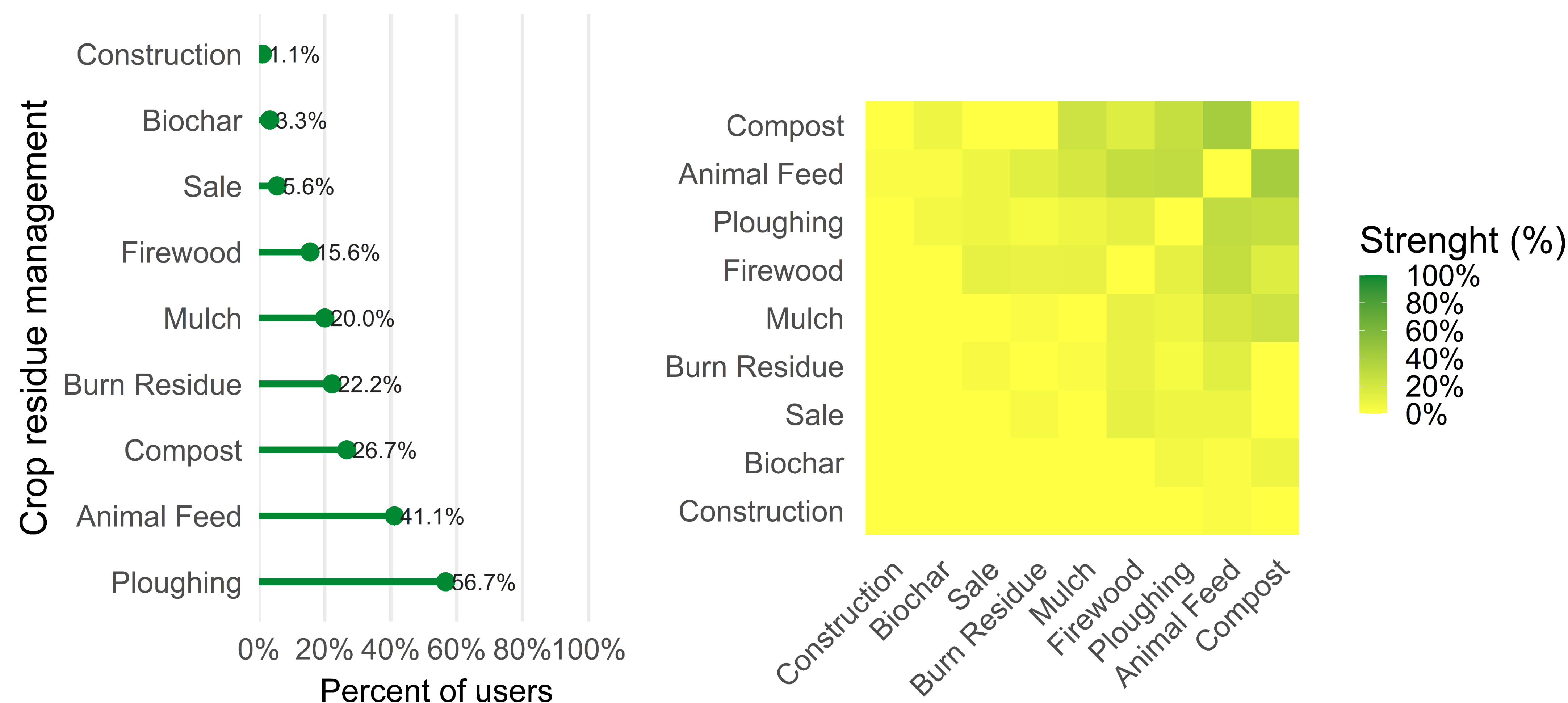
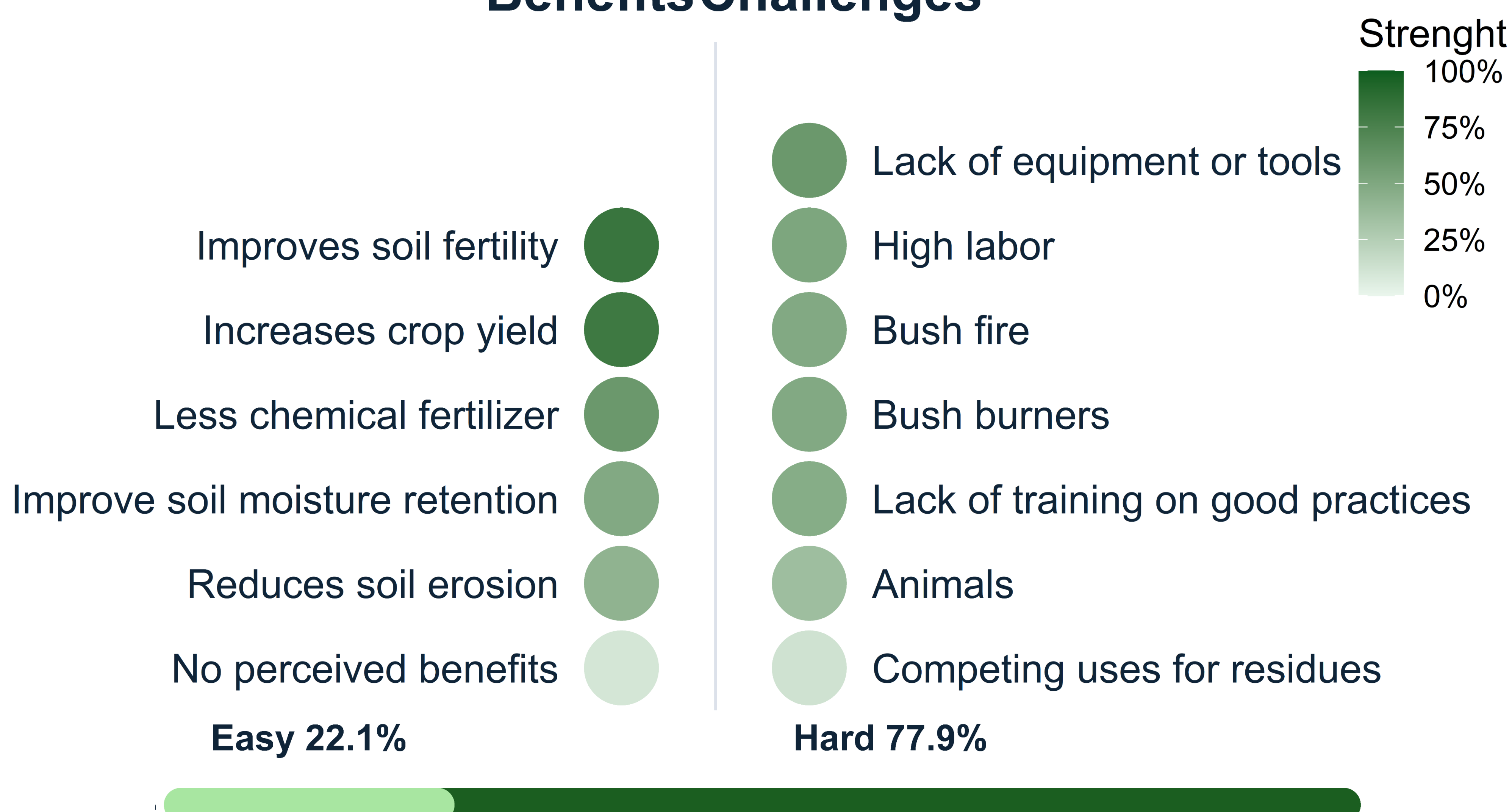


Figure 3: Farmers' perceived benefits, challenges and crop residue ease of use

### BenefitsChallenges



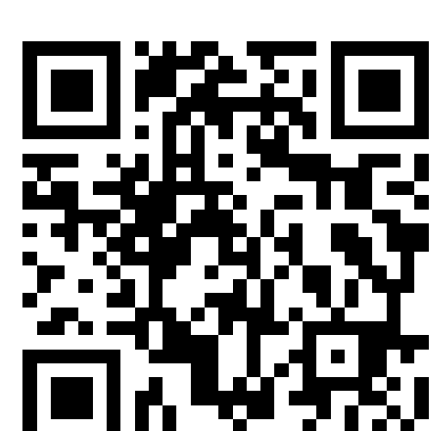
## 4. Enabling factors

- Equipment and tools
- Mechanization and transport
- Crop-livestock management
- Training on different models
- Field demonstration

### References

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2. Quansah, G. W. (2010). *Effect of organic and inorganic fertilizers and their combinations on the growth and yield of maize in the semi-deciduous forest zone of Ghana* (Doctoral dissertation, KNUST).



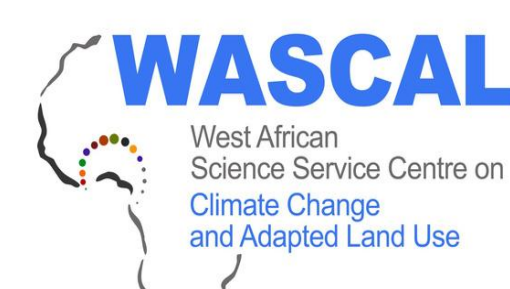
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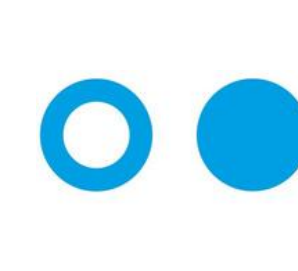
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