Increasing Common Bean Productivity with N2Africa’s Best-Fit Practices

Key facts about common bean
- Common bean contributes towards a balanced diet because of its high protein content
- It serves as source of cash to farmers and export commodity to earn foreign currency for Ethiopia
- Common bean is grown both as sole crop and in association with other crops

Why N2Africa focus on the common bean?
- Common bean is potential for food and nutrition security.
- Common bean is the main source of foreign currency for Ethiopia.
- Improve soil fertility and productivity
- It is a climate smart crop
- It is potential source of animal feeds as the residue has high crude protein content

N2Africa approaches to deliver & disseminate the best fit practices
- N2Africa provided hands-on training for smallholder farmers and encouraged them to try out improved legume varieties and technologies, including i.e. phosphorus fertilizers and rhizobium inoculants.
- N2Africa received feedbacks from farmers ensuring wider promotion of preferred best-fit practices.
- N2Africa mapped, established and functionalized the Public Private-Partnerships (PPPs), promoted effective legume value chain platforms.
- N2Africa linked scientific knowledge with capacity building, women empowerment, and access to input supply and output markets through the PPPs.
Achievements

Productivity
• N2Africa’s package (I+P) in common bean can boost at least by 29% (2200 kg ha\(^{-1}\)) yield compared to the national average (1.7 t ha\(^{-1}\))
• The best bet package (I+P) can increase the grain yield up to 2.6 t ha\(^{-1}\)
• Despite the best bet practice (I+P) increased the yield (2.3-2.9 t ha\(^{-1}\)), there were significant yield variability across the farms
• Farmers’ preferred of high yielding and marketable varieties were identified and recommended.

Preferences
• At evaluation of the demonstrated technologies, groups of farmers disaggregated by gender preferred improved common bean varieties and P+I package as the best practice. They also witnessed that the best bet practice can also improve soil fertility due to nitrogen fixing capacity and defoliated leaves decomposition which enhanced the soil organic matter.

<table>
<thead>
<tr>
<th>Common bean variety name</th>
<th>PPP Clusters</th>
<th>Recommended Areas (Woredas/ Districts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasir, Awassa Dume, Dinkinesh</td>
<td>South</td>
<td>Central Rift Valley and Southern Ethiopia (Shala, Boricha, Soddo Zuria, Halaba)</td>
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<tr>
<td>Nasir, Awassa Dume, Dinkinesh, Ibado</td>
<td>Chewaka</td>
<td>Western Ethiopia (Bako Tibe, Dano, Illu Gelan, Gobu Sayo, Wayu Tuka, Illu Harar)</td>
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<tr>
<td>Nasir</td>
<td>Pawe</td>
<td>North-western Ethiopia (Mandura, Dibatie)</td>
</tr>
</tbody>
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