No fertilizer treatment

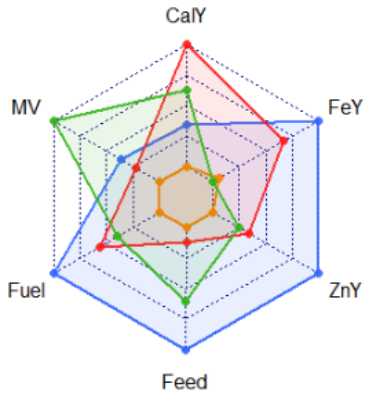
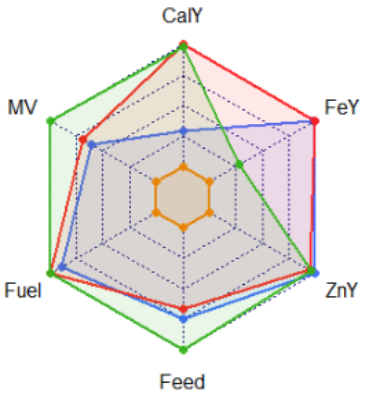
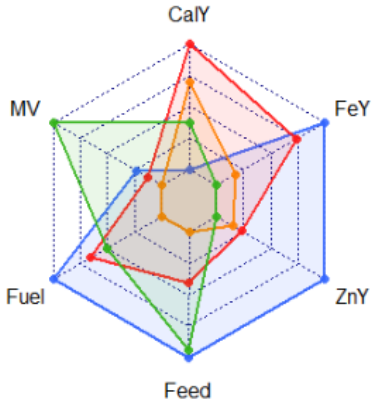
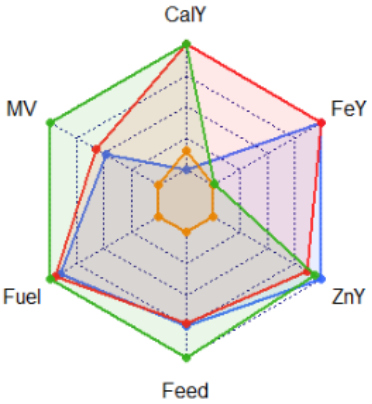
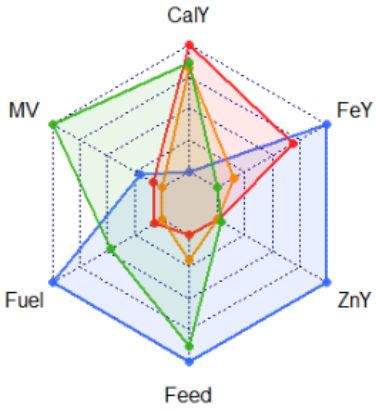
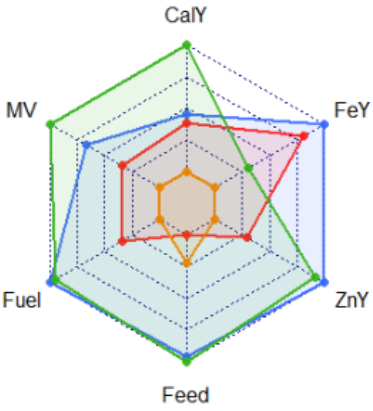
	Area-scaled yields	Yield-scaled SOC balance
1		
2		
3		

Figure S1a. Multi-criteria yield assessment of Caloric yield (CalY); iron yield (FeY); zinc yield (ZnY); metabolizable energy yield (feed), cooking fuel yield (fuel), monetary value (MV) of cereal crops on an area-scaled basis (provision per hectare) and yield-scaled SOC balance-basis (yield per unit of avoided SOC loss) under the "no fertilizer" treatment. Colors represent different crops: millet (blue), sorghum (red), maize (yellow) and rice (green). Numbers in the left column indicate soil fertility characteristics (1 = low fertility, 2 = medium fertility, 3 = hydromorphic soil).

5 kg N ha^{-1}

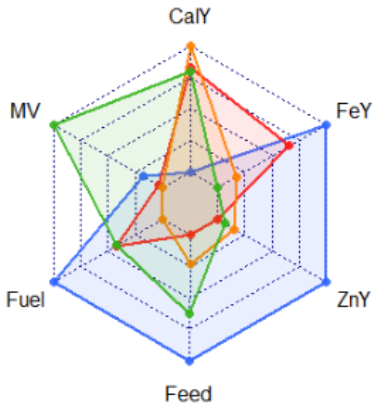
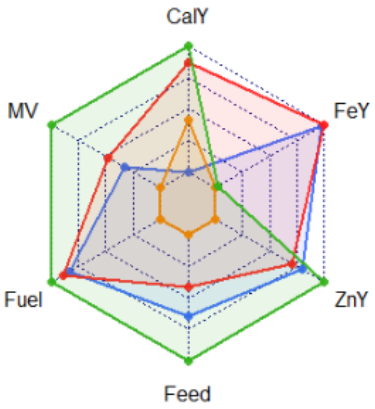
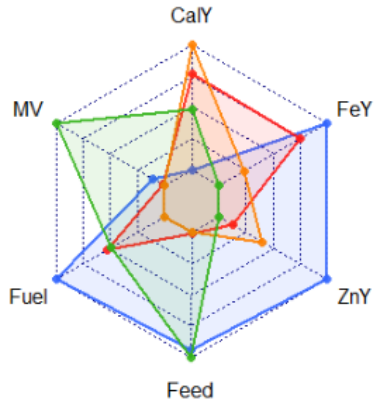
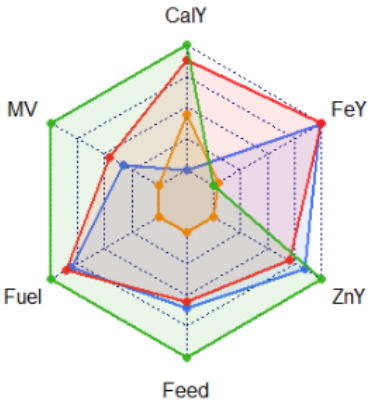
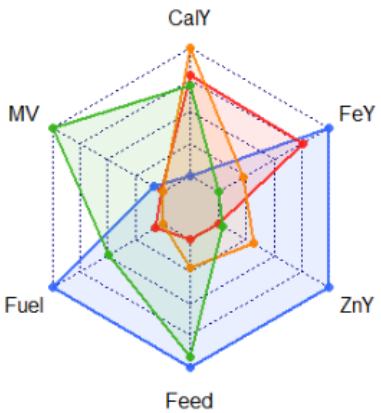
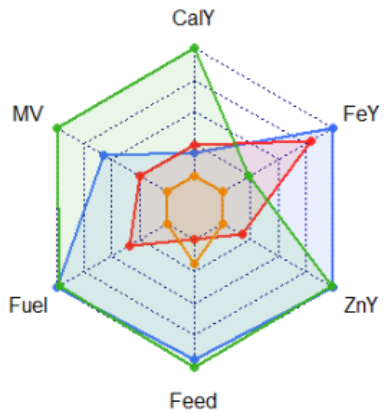
	Area-scaled yields	Yield-scaled SOC balance
1		
2		
3		

Figure S1b. Multi-criteria yield assessment of Caloric yield (CalY); iron yield (FeY); zinc yield (ZnY); metabolizable energy yield (feed), cooking fuel yield (fuel), monetary value (MV) of cereal crops on an area-scaled basis (provision per hectare) and yield-scaled SOC balance-basis (yield per unit of avoided SOC loss) under the "5N-2P" treatment. Colors represent different crops: millet (blue), sorghum (red), maize (yellow) and rice (green). Numbers in the left column indicate soil fertility characteristics (1 = low fertility, 2 = medium fertility, 3 = hydromorphic soil).

20 kg N ha^{-1}

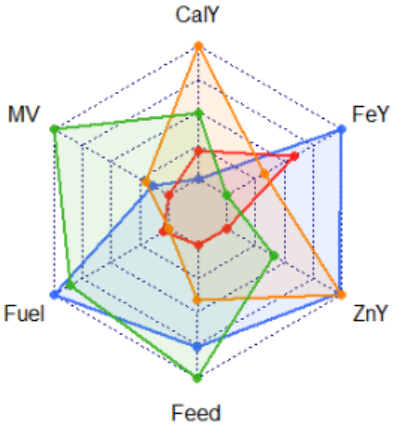
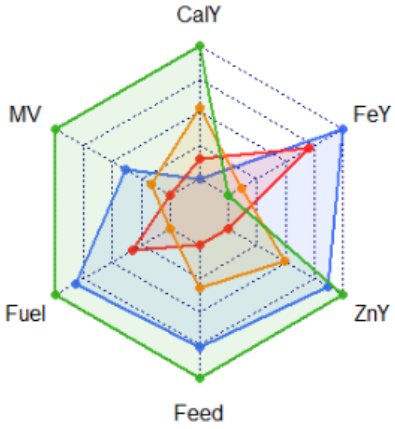
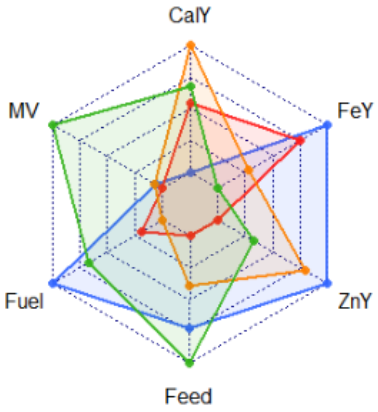
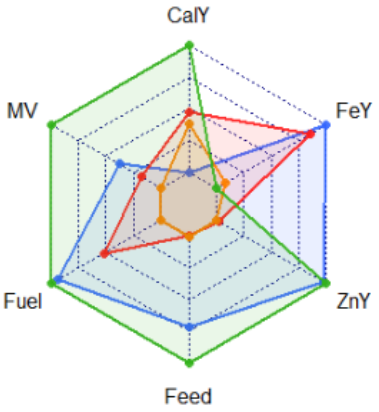
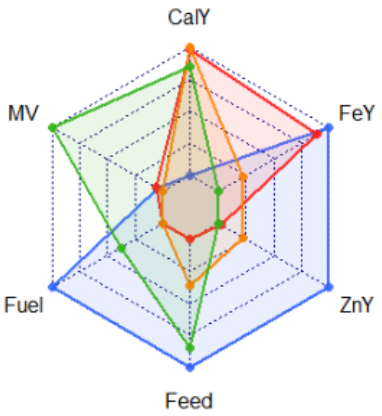
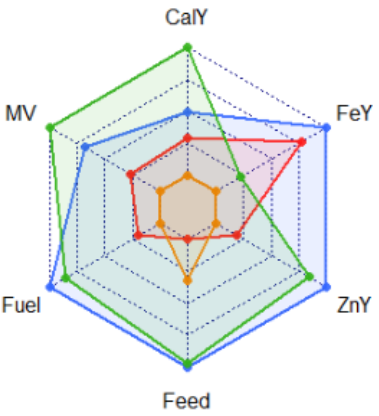
	Area-scaled yields	Yield-scaled SOC balance
1		
2		
3		

Figure S1c. Multi-criteria yield assessment of Caloric yield (CalY); iron yield (FeY); zinc yield (ZnY); metabolizable energy yield (feed), cooking fuel yield (fuel), monetary value (MV) of cereal crops on an area-scaled basis (provision per hectare) and yield-scaled SOC balance-basis (yield per unit of avoided SOC loss) under the "20N-7P" treatment. Colors represent different crops: millet (blue), sorghum (red), maize (yellow) and rice (green). Numbers in the left column indicate soil fertility characteristics (1 = low fertility, 2 = medium fertility, 3 = hydromorphic soil).

50 kg N ha^{-1}

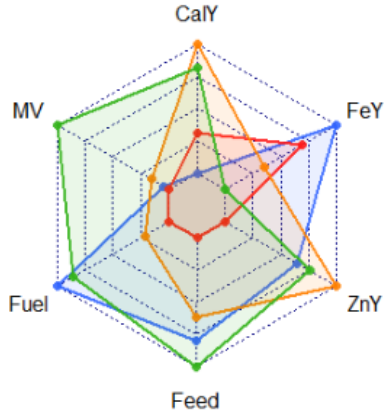
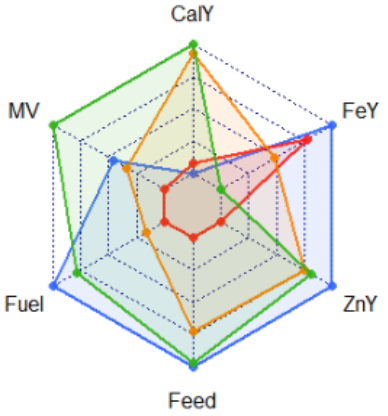
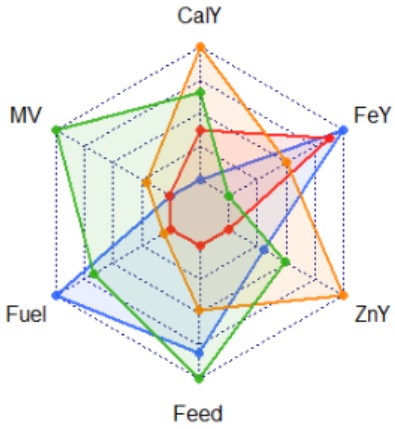
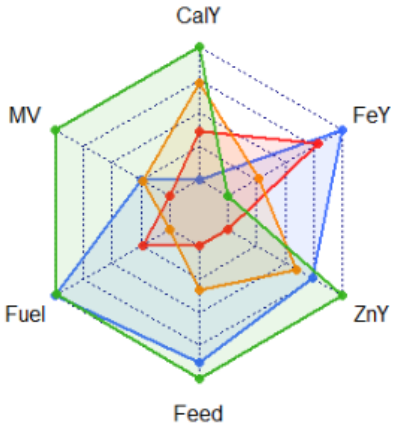
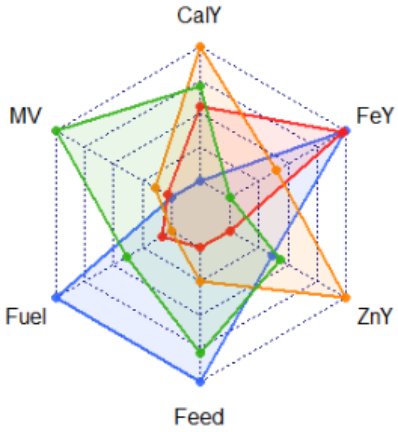
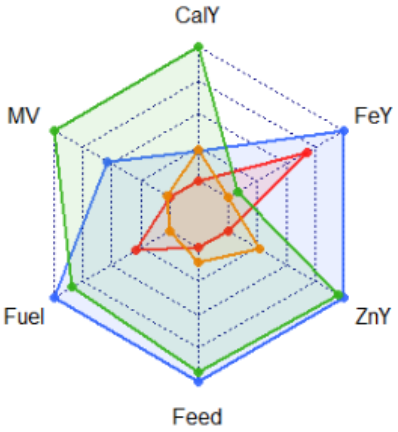
	Area-scaled yields	Yield-scaled SOC balance
1		
2		
3		

Figure S1d. Multi-criteria yield assessment of Caloric yield (CalY); iron yield (FeY); zinc yield (ZnY); metabolizable energy yield (feed), cooking fuel yield (fuel), monetary value (MV) of cereal crops on an area-scaled basis (provision per hectare) and yield-scaled SOC balance-basis (yield per unit of avoided SOC loss) under the "50N-17P" treatment. Colors represent different crops: millet (blue), sorghum (red), maize (yellow) and rice (green). Numbers in the left column indicate soil fertility characteristics (1 = low fertility, 2 = medium fertility, 3 = hydromorphic soil).

100 kg N ha^{-1}

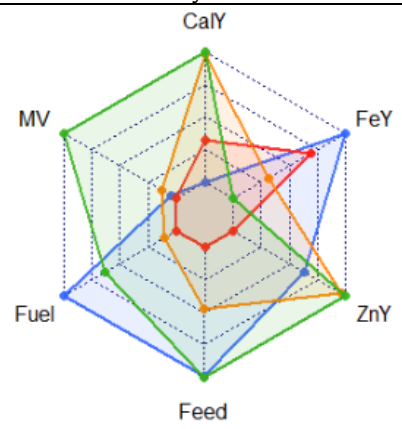
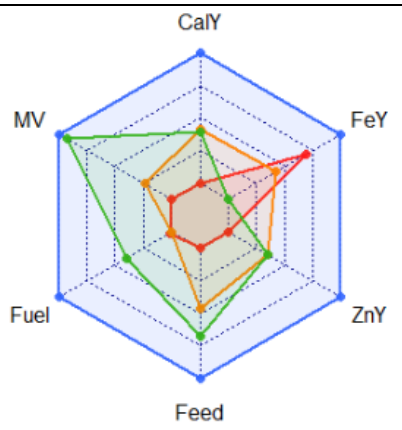
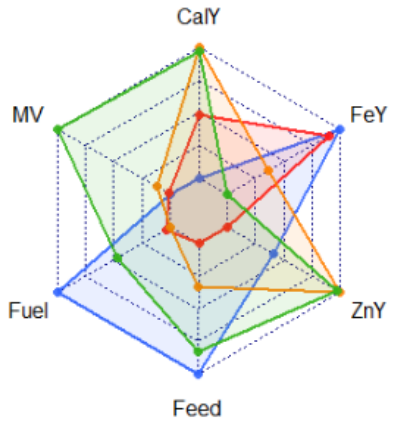
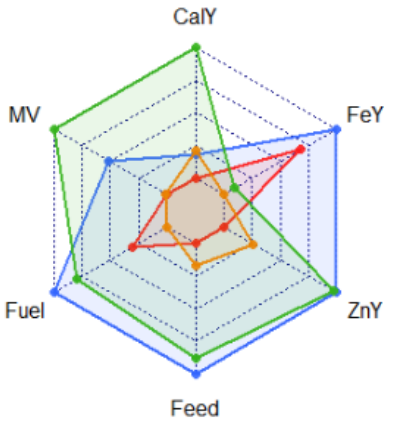
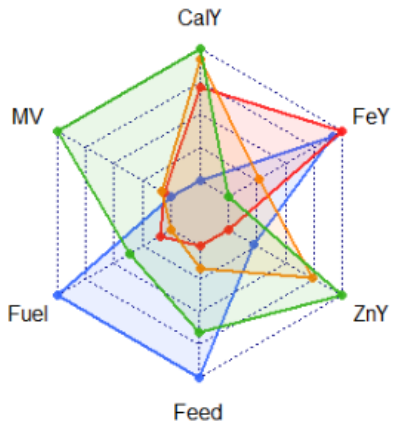
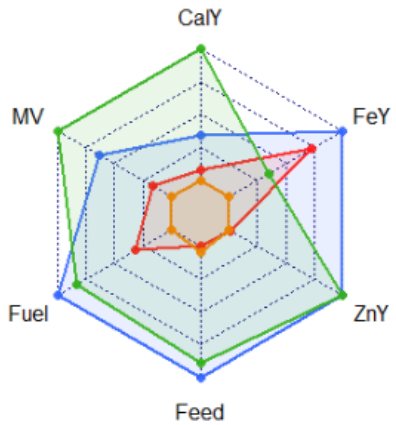
	Area-scaled yields	Yield-scaled SOC balance
1		
2		
3		

Figure S1e. Multi-criteria yield assessment of Caloric yield (CalY); iron yield (FeY); zinc yield (ZnY); metabolizable energy yield (feed), cooking fuel yield (fuel), monetary value (MV) of cereal crops on an area-scaled basis (provision per hectare) and yield-scaled SOC balance-basis (yield per unit of avoided SOC loss) under the "100N-33P" treatment. Colors represent different crops: millet (blue), sorghum (red), maize (yellow) and rice (green). Numbers in the left column indicate soil fertility characteristics (1 = low fertility, 2 = medium fertility, 3 = hydromorphic soil).