FARMERS' PERCEPTIONS AND PREFERENCES ON SUITABILITY OF ALTERNATIVE FODDER GRASSES CONTINGENT ON NAPIER STUNT DISEASE IN BUNGOMA DISTRICT, KENYA

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Introduction and objective

- Smallholder dairy sector in Western Kenya plays an important role in the livelihoods of many farm households in generating income and employment
- Napier grass is the principal source of livestock feed as well an integral grass in <u>push-pull technology</u>,
- However, cultivation and expansion of Napier grass is being threatened by NSD, causing economic losses
- Objective-assess farmers' perceptions on suitability of alternative fodder grasses so as to establish their preference for dairy grasses following the threat caused by NSD

Materials and methods

- Sample size—140 respondents
- Descriptive statistics and Multinomial logit model were utilized
- General form of MNL:

$$P_r = I = \frac{e^{\beta_j x_i}}{1 + \sum_{i=1}^{n} \beta_i x_i} = i = ,2,...j$$

Marginal effects were derived using equation below and interpreted

$$\frac{\delta p_j}{\delta c_i} = \gamma_j \left(\beta_j - \frac{m}{i} \gamma_i \beta_j \right) j = 2..., m$$

Results and conclusion

- Grasses ranked in order of their preferences-natural grass, signal grass, giant seteria, Sudan grass and molasses grass
- Several farm and farmer xtics, institutional xtics and grass attributes significantly affect both the probability and the intensity of having the fodder on the farm
- > Small-scale farmers have great experience and knowledge of alternative forage grasses that may meet their needs
- Farmers should be involved in evaluation of fodder grasses to establish their suitability into farmers' farming systems

Recommendations

- On farm trials/demonstrations to test grass attributes suggested as important in decision making on preference and adoption of alternative grasses
- Relevant line ministries to hasten research work on alternative fodder grasses to enhance smallholder dairy industry and mitigation of the serious threat by the NSD to the sector
- Investments in farmer training and extension information should be promoted by both the public and private sectors to enable farmers to access appropriate technologies and management practices

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NSD

