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| **Expected Outcomes** | **Inputs (What you’re investing)** | **Outputs (What’s produced – activities and information products)** | **Evaluating/Monitoring Plan; Measurement Methods** |
| 🞏 Increased awareness of synthetic anthelmintic parasite resistance🞏 Understanding condensed tannin level required to reduce parasite load, effectiveness in goats, and management strategies🞏 Development of strategies for use on producer farms🞏 Producer education in the use of natural replacements for chemical anthelmintics | 🞏 Intellectual resources: 1 scientist, 1 technician, 1 graduate student and 1 undergraduate student🞏 Support: 1 research and teaching farm (LU) and 2 producer farms🞏 Producer participation (2 farmers) in dosing field trials🞏 Education: 2 hands-on workshop demonstrations | 🞏 Farmer participation in projects, demonstrations, and conferences🞏 Graduate research reports and presentations🞏 Newsletter article and guide sheets🞏 Parasite reduction program using natural anthelmintics🞏 Additional experiments designed in natural anthelmintic use🞏 On-farm demonstrations | 🞏 Initial project evaluation meeting🞏 Interim project evaluation meeting🞏 Workshop participant knowledge and evaluation🞏 Producers’ associations website hits🞏 Farm inspections and animal parasite load evaluations |
| **Action Outcomes:**🞏 Reduction in resistant parasitic conditions in goats🞏 Reduction in goat losses in production due to gastrointestinal parasitic infection🞏 Increased profitability for producers due to more productive livestock🞏 Adapted techniques that replace synthetic anthelmintic use in goat herds🞏 Improve animal welfare, well-being, and sustainable small ruminant production | 🞏 1 treatment trial🞏 Management and use of NCR-SARE funds (request $10,000.00)🞏 New research, education, and project initiations | 🞏 1 paper, 2 abstracts, and thesis published🞏 Animal welfare and well-being improved🞏 Data collected and analyzed; abstract and project reports submitted and published🞏 Producer adoption of natural anthelmintic based on findings of the research and demonstrations | 🞏 Scientific abstracts and journal article publications🞏 Producer participation in demonstrations and hands-on activities🞏 Producer adoption of new practices🞏 Prevention and reduction of resistant and persistent parasitic infection by natural anthelmintic use |