Changes in Management at the Breton Plots Over 75 Years

An Alberta Registered Historic Resource

1929 - 1979

1929 - Preliminary fertilizer trials

1930 - Classical Experiment

. Two cropping systems; continuous wheat and 4-year cereal-forage rotation
  . Several treatments (fertilizer, manure, lime)
. 5 blocks of land (Series)

1938- Began 2-year Wheat-Fallow From Continous Wheat

1939 - Addition of One More Series (Series F)

. 4-year rotation increased to 5-year rotation
. 11 treatments

1946 - University Purchases Plot Land From Ben Flesher

1929 - 1967

. Different forage species used (i.e., clover, alfalfa)

1967 - Present

. Used only alfalfa and brome grass in 5-year creal-forage rotation

1979 - 2000

1979 - Fertilizer Rates on Classical Plots Adjusted to Match Current

. Treatment changes:
  NS to NKS(-P)
  LNPKS to NPK(-S)
  P to PKS(-N)

. Several treatments (fertilizer, manure, lime); 5 blocks of land (Series)

1979 - Hendrigan Plots and Agro-Ecological Rotation

. Continuous fescu
. Continuous cereal
. 8-year rotation

1979 - Tillage-Straw-Nitrogen Plots (TSN) and Phosphorus (P)

1982 - N-Immobilization Plots

1999 - Canola - Triticale - Peas - Cereal Rotation Initiated on TSN, P and Immobilization Plots

2000 - Beyond

2000 - Classical Plots Revisions

. Straw returned on cereal plots
. Underseeded barley removed as silage
. Began to quantify crop residues returned on all plots
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2000 - Agro-Ecological Rotation Revisions

. 8-year rotation changed
. Manure added more frequently within 8-year rotation

2000 - Meteorological Station Upgraded Within Alberta Drought Weather/Soil Moisture Network

UNIVERSITY OF ALBERTA
Faculty of Agricultural, Life and Environmental Sciences

Renewable Resources