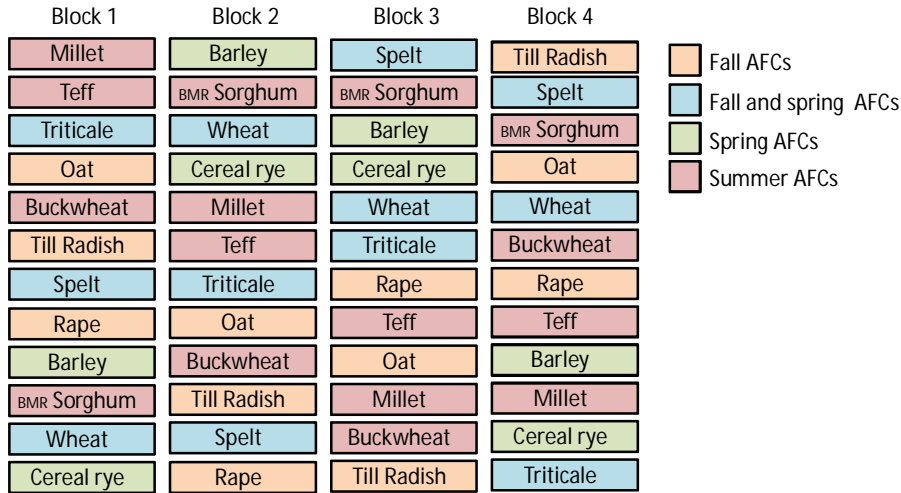
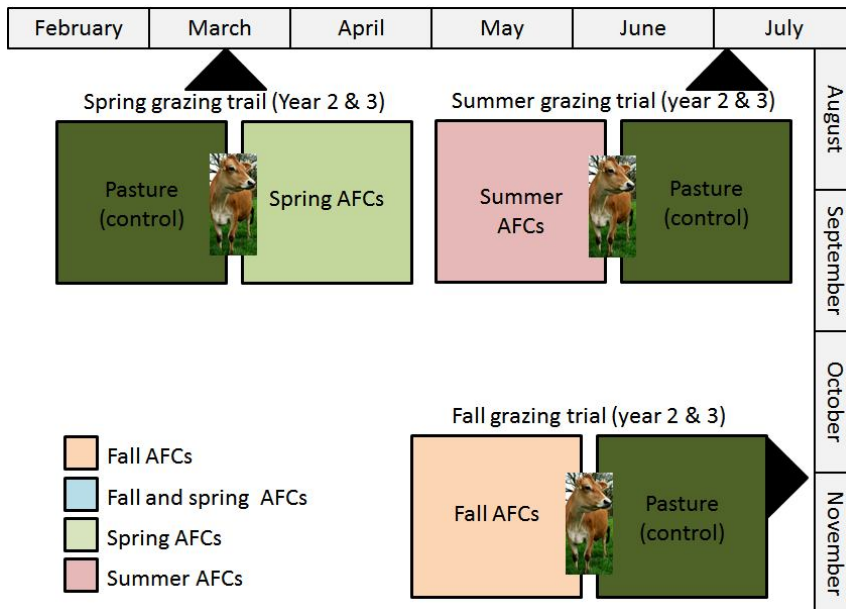


A) UNH Experiment-1 (years 1-3)



B) UNH Experiment-2 (years 2-3)



C) PSU Experiment-1 (years 1-3)

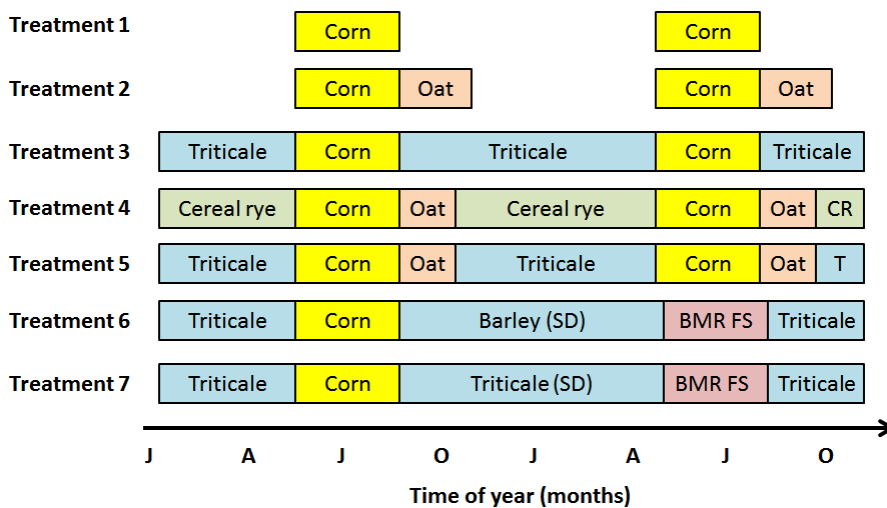


Figure 1. Diagrams representing three proposed field experiments to investigate AFCs under grazing- and silage-based production systems. Two experiments will be conducted at UNH. The first is an AFC performance trial that includes twelve species intended to address three critical periods in the grazing season (A); the second is a replicated grazing trial in which we will assess how select AFCs, when grazed, affect cow performance (milk production) and GHG emissions at three critical periods in the grazing season (B). The third experiment will be conducted at PSU and will include seven replicated treatments aimed at integrating select AFCs into corn silage rotations (C). In each treatment, we will measure AFC establishment, yields, and silage quality, as well as corn silage yields. The economic costs and returns associated with AFC establishment, management, and utilization will be assessed in each of the three experiments.