## **Cover Crop Rotations for the Cattle Industry**

Alika Napier and Bob Cherry

As Hawaii continues to research options for locally grown livestock feed, Robert Cherry of Flying R Livestock and Alika Napier of Pioneer have developed a neighborly partnership that makes valuable use of cover crop plantings. Since 2011 the cover crop grown for this partnership has been mowed and baled at maturity to provide supplemental feed for cattle and horses at Bob Cherry's Flying R Ranch.

The cover crop grown by Pioneer is part of the company's environmental stewardship practices to protect soil from wind and rain erosion. Pioneer plants 400-500 acres of ground cover an-



nually on fallow fields during the months of October thru November. Ground cover consists of Black oats and Sunn Hemp. Previously, biomass and residue left from cover crops were mechanically incorporated into the soil. Some cover crops will produce a lot of biomass, which requires multiple discing rounds to incorporate into the soil. Flying R now mows and bales the oats as they mature at the end of the season for use as livestock feed. This practice significantly reduces the biomass while still providing soil conservation ground cover late in the season.

As a result of this cross-industry collaboration, Bob was able to bale 110 tons of cover crop to use as livestock feed, and said he could have used a lot more. The savings made by both parties has been significant. Bob ended up saving \$330 per ton in feed and lessening the tillage costs associated with fallow land management resulted in a savings of \$200 per acre for Pioneer.

The crops that Bob and Alika have tried thus far are Black Oats, Winter Wheat, Alfalfa, Mung Bean, Sunn Hemp and Buckwheat. Future plans include conducting research on drought tolerant oats that will require little water for establishment as well as identifying and experimenting with planting other crops with higher nutritional values that meet the needs of Flying R and provide adequate soil conservation ground cover for Pioneer year round. As the seed industry is encouraged to help the livestock industry, this partnership with Flying R serves as an excellent model of ways businesses can support each other in agriculture.

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