Herbicides designed and developed for selective broadleaf weed control in grasslands are a catalyst to expedite grassland renovation, improve forage resources, increase carrying capacity, and improve wildlife habitat.

Abstract
- Sustainably stewarding grassland systems involves applying various practices to manipulate forage interactions with other plants, the environment, and grazing animals to meet resource manager objectives.
- Weeds reduce the feed value of forage, decrease pasture carrying capacity, and can be toxic or unpalatable to livestock.
- Herbicides can be catalysts that expedite grassland renovation, improve the forage resource, increase carrying capacity and improve wildlife habitat. Clover selective herbicides developed by Corteva helps enable this.
- When applied as a stand-alone treatment or in various mixes these products are safe to desirable grass species and control key herbaceous and woody weeds in the genera Amaranthus, Acalypha, Cordaule, Centaurea, Cirsium, Mimosa, Prosopis, Ranunculus, Rumex, Sisso, Solonum, Taraxacum, and more.

Materials and Methods
- Replicated trials established 2005-2020 across North America, Latin America, South Africa, and Europe. Randomized Complete Block Design with 3-4 replications
- Multiple application methods - aerial, ground broadcast, and foliar individual plant treatment (spot treatment) at recommended growth stage. Treatments are in grams acid equivalent per hectare (g ae ha⁻1), except Mixture A, which is in grams of product ha⁻¹.
- Visual estimate of percent control was taken on a scale of 0 to 100% where 0% is no effect and 100% represents complete mortality. Data shown are means of all replications.

Results
- Fig. 1. Horned Mesquite Control with Sendero™ herbicide (Aminopyralid + Clopyralid), Texas, USA, 2009-11 (2VX7)
- Fig. 2. Pasture (left) treated with newly developed clover selective herbicide (GF-3731) compared to non treated area of same pasture (right). Grass productivity increased and white clover (T. repens) is persevered in treated area.
- Fig. 3. Percent control of Cirsium arvense (Canada thistle) treated in the autumn at 5 locations in the United States
- Fig. 4. Combined mean percent control of Sida acuta, S. glaziovii, S. hirsutissima, and S. rhombifolia in Brazil, Costa Rica, Guatemala, and Mexico with Mixture A.
- Fig. 5. Control of grassland weeds with aminopyralid alone at 120 g ae ha⁻¹ compared to Rinskor® active + Aminopyralid at 9.5+120 g ae ha⁻¹.
- Fig. 6. Comparison of Brachiaria spp. yield from treated (Dominum™ herbicide - 40 g ae/L Aminopyralid + Fluroxypyr 80 g ae/L) and non treated plots.

Summary
- Mixtures of newly developed herbicides such as Rinskor improve weed control compared to previously available products.
- Herbicides are effective for controlling weeds and brush, some of which are toxic to livestock.
- Controlling weeds improve forage productivity.