**Ray’s Crazy Summer Mix**

**Diverse summer soil building or grazing mix**

This is a versatile warm-season mix made up of a diverse variety of stress-tolerant summer annuals—cowpea, sorghum-sudans, pearl millet, radish, forage brassica and sunflower—that can be used a short-term cover crop, a soil-building transition crop to renovate depleted soils, a smother crop, a grazing mix, and a wildlife food plot. It also contains several blooming species that, if left to grow and flower, will attract beneficial insect species. The mix is beneficial for both no-till and conventional-till management.

**Dual Grazing & Cover Crop Application**—To maximize forage quality, begin grazing this mix when the sorghum-sudan and millet have reached 18-20 inches. If re-growth is expected, remove the cows when the residual height is ~6 inches. Successive strips can be planted for season-long grazing. The more mature the plants become, the higher the lignin levels and the lower the quality. While allowing them to reach heights depicted in the pictures below is beneficial for the soil, the feed quality produced at this height is better suited for maintenance animals (mature cows). Finding a balance between quality forage and soil health will be determined by your livestock’s needs.

**Break Crop**—Need to re-seed perennial pastures? Try using this mix as a summer break crop before re-seeding to help build soil health. Protocol is to terminate existing perennial stand in the spring, then plant, grow and graze Ray’s Crazy Mix. Terminate Ray’s Crazy Mix in late summer and re-seed perennial pasture. Great for rotating out of K-31 into Novel Endophyte Fescue!

**Strictly Cover Crop Application:** For a quick crop rotation turnaround during the summer, grown between spring harvested and late summer planted crops, use the recommended seeding rate. A lower seeding rate is appropriate, IF the crop will be left to grow as a longer-maturing cover crop past the stage of high-quality forage use, simply to maximize biomass and organic matter production in the field. It can be terminated with herbicides, mowed and mulched and left on the surface for no-till scenarios, or it can be mulched and turned under as a green manure in conventional till or organic scenarios. In either case this can be done in time for fall planting.

**Smother Crop**—One multi-use application for this mix is a smother crop for rejuvenating pastures. Seed heavy into a suppressed (by grazing or mowing) existing stand and allow the mix to smother out the existing stand. This does not work in all conditions so consult your extension agent for King’s representative to see if this application will work for your field.

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**At A Glance**

**Product Formula (by weight)**

- 61% Cowpea
- 11% Sorghum Sudan AS6501
- 7% Daikon Radish
- 7% Hybrid Pearl Millet
- 5% Sorghum Sudan AS6401
- 4% Peredovik Sunflower
- 3% T-Raptor Hybrid Brassica

**Establishment**

**Soil Temp:** 60 degrees F plus

**Seeding Rate:** 40-60 lbs/A

**Depth:** 1/2”-1 Inch

**Fertility**

Soil sampling is necessary for direction on applying the appropriate soil amendments. For this mix we recommend an upfront application of nitrogen as well an application after each grazing.
### Mix Component

<table>
<thead>
<tr>
<th>Component</th>
<th>Benefit</th>
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<tbody>
<tr>
<td>Iron Clay Cowpea</td>
<td>Productive heat adaptive legume. Excellent drought resistance combined with good tolerance of heat, low fertility and a range of soils; if left to bloom, flowers attract many beneficial insects that prey on other pests. As a forage, provides high digestibility and protein.</td>
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<tr>
<td>AS 6501 Sorghum Sudan</td>
<td>BMR Gene 6 Photoperiod sensitive sorghum sudan that has a long window of vegetative growth and will provide a high quality forage in addition to a quick-growing, long-lasting soil builder with high organic matter and breaks up compaction.</td>
</tr>
<tr>
<td>AS 6401 Sorghum Sudan</td>
<td>BMR Gene 6 with improved regrowth (especially compared to other hybrids where fusarium is a problem) and disease resistance. Disease resistance usually manifests in wet soil conditions with higher humidity.</td>
</tr>
<tr>
<td>Hybrid Pearl Millet</td>
<td>Drought resistant, fibrous root systems. Tolerant of most soil types, but well suited to sandy soils. Tolerates infertile soils better than most other crops.</td>
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<tr>
<td>Daikon Radish</td>
<td>Deep, thick tap root penetrates compacted soil, scavenger of nitrogen, calcium, sulfur and magnesium, weed suppressor, suppress nematodes.</td>
</tr>
<tr>
<td>T-Raptor Hybrid Brassica</td>
<td>Excellent scavenger of nitrogen and other nutrients, including calcium, sulfur and magnesium, weed suppressor.</td>
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<tr>
<td>Peredovik Sunflower</td>
<td>Strong taproots penetrating vertically downward, widely spreading branch roots, enlarged taproot eventually grows many laterals. Large leaf structure helps with weed suppression. Blooms attract pollinators and beneficial insects</td>
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**Root diversity** is an important benefit of the mix. Tap roots like those of Daikon Radish and sunflower scavenge nitrogen and other nutrients from deeper levels in the soil, while fibrous roots of millet and sorghum-sudan anchor soil and sequester carbon, which builds organic matter. This root diversity is helpful in no-till soils to biologically break up hard-pans and bring key nutrients that have leached over time back up into the seed germinating zone of the soil.