

UK Beef IRM Mineral Recommendations
(free-choice supplements for grazing beef cattle)

Date: January, 2021

<i>Level</i>	<i>Basic Cow-Calf Mineral¹</i>	<i>High Magnesium Mineral²</i>	<i>Stocker Mineral with Monensin³</i>
Salt, %	22 - 25	15	22-26
Mg, % (from MgO)	2	12 ⁴	0.15
Ca, % (minimum)	11	11.5	9
Ca, % (maximum)	12	13	10.5
P, %	4.0	6.0	6
K, %	0.5	0.1	0.8
S, % (maximum)	1.0	1.0	0.8
Cu, ppm ⁵	1,600	1,400	2,000
Zn, ppm	3,200	3,000	4,000
Se, ppm ⁶ (See below)	35	26	35
I, ppm	65	50	60
Co, ppm	15	12	15
Manganese, ppm	3,750	3,700	3,000
Fe (iron) Added ⁷	None	None	None
Vit A, IU/lb	150,000	100,000	150,000
Vit E, IU/lb	150	100	150
Monensin, grams/Ton ⁸	None	None	1,620
Nutritional adequacy based on intake (oz/hd/day)	3	4	3

¹Distillers dried grains (40 lb/ton), wet molasses (20 lb/ton), and mineral oil (20 lb/ton).

²Distillers Dried Grains (no less than 150 and up to 250 lbs/ton as space allows), wet molasses (20 lbs/ton) and mineral oil (20 lbs/ton). (May substitute 50 lbs of dehy molasses for distillers grains to improve intake). To be fed when conditions for grass tetany exist. Formulated for cows during pre- and early lactation.

³Contains Monocalcium phosphate 29.49%, Dried cane molasses 20%, Ground limestone 13.75%, cane molasses 3%, Distillers dried grains 5%, Mineral oil 1%. FDA approved free-choice formula.

⁴Magnesium oxide should be the source of magnesium, not dolomitic limestone or magnesium mica. Prilled magnesium oxide is not available currently and has been removed as a recommendation.

⁵Minimum one-fourth of copper in an "organic" (chelate, proteinate, etc.) form. No copper oxide shall be used.

⁶Minimum of 50% of selenium shall come from selenium yeast product (i.e. Sel-Plex[®]). Three oz. supplement intake at 35 ppm or 4 oz. intake at 26 ppm provides 3 mg of selenium per head daily.

⁷No iron oxide for coloring.

⁸Three oz. supplement intake provides 152 mg of Monensin per head daily.

NOTES:

If an additional ingredient is needed to meet the 2,000 lb formula, we specify distillers dried grains with solubles.

These products are not recommended for sheep, goats or Jersey cattle due to potential copper toxicity.

Please note, the University of Kentucky has formulated these recommendations specifically for otherwise healthy cattle based upon National Research Council (NRC) guidelines for animal requirements, average forage analyses in Kentucky and research on mineral availability in forages. Actual forage levels may vary. If you have any concerns about the health or special needs of your herd, you should contact the Extension Service or your veterinarian. While the University provides these recommendations based upon currently available data, it assumes no responsibility for any errors on the part of the supplier or producer, including but not limited to mixing, handling, or other formulation errors.