

Nutrient Alternatives

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Assumptions for Tables

- Based on actual test results from past trial and on farm work;
- Promotes analysis for soil & amendments \$40;
- Producers are prepared to apply bulky material time permitting or have it custom applied;
- Producers are thinking down the road in their rotation, preparing their land for the cash cow crop; and
- Producers are costing out all their options for nutrients given uncertain times.

Barley @ 1.8 t/ac or 75 bu/ac**Cdn Fertilizer Institute, Eastern Cdn, 2001**

24 Feb 11 PT

			Incorp Dairy	Incorp Beef	Compost		Organic	Lob/Crab		Fert	Typical	Typical
			Manure as is	Manure as is	as is	Ash as is	Pellet	Meal	Dol Lime	21-12-6-24	Soil Test	Soil Test
Unit	lbs/ac	lbs/ac	5000 USG/ac	10 t/ac	10 t/ac	5 t/ac	2 t/ac	1.5 t/ac	3 t/ac	250 lbs/ac	NB	Recomm
			7% dm	46% dm	50.3% dm	70% dm	90% dm	93.1% dm	95% dm	100% dm		
			lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lb/ac	ppm	lbs/ac
N	90-110	65-85	73	22	54	0	80	112	0	53	n/a	53
P ₂ O ₅	35-40	28-30	21	62	97	50	17	34	0	30	45	22
K ₂ O	75-110	20-25	113	8	127	161	67	25	0	15	100	53
Ca	17	2	73	946	485	435	83	235	1197	0	n/a	n/a
Mg	8-13	4	25	61	47	58	15	14	656	0	n/a	n/a
S	13-15	6	12	9	352	217	171	192	0	60	n/a	n/a
C	n/a	n/a	1086	2962	3016	1414	1498	1128	0	0	n/a	n/a
C:N	n/a	n/a	9	23	17	Low	13	5	Low	0	n/a	n/a
pH	6-7	6-7	8	8	6	12	6.3	7	12	acidic	n/a	n/a
Other	n/a	n/a	Micros	Micros	Micros	Micros	Spreadable	Spreadable	Long	Low Rate	n/a	n/a
Benefits	n/a	n/a	Soil builder	Soil builder	Soil builder++	33% CaCO ₃	SlowReIN	SlowReIN	Lasting	Easy to apply	n/a	n/a

Grain Corn @ 4.2 t/ac or 150 bu/ac
Cdn Fertilizer Institute, Eastern Cdn, 2001

24 Feb 11 PT

			Incorp Dairy	Incorp Beef	Compost		Organic	Lob/Crab		Fert 1/3 band	Typical	Typical
			Manure as is	Manure as is	as is	Ash as is	Pellet	Meal	Dol Lime	21-12-6-24	Soil Test	Soil Test
Unit	Uptake lbs/ac	Removal lbs/ac	5000 USG/ac	10 t/ac	10 t/ac	5 t/ac	2 t/ac	1.5 t/ac	3 t/ac	600 lbs/ac	NB	Recomm
			7% dm	46% dm	50.3% dm	70% dm	90% dm	93.1% dm	95% dm	100% dm		
			lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lb/ac	ppm	lbs/ac
N	170-240	100-150	73	22	54	0	80	112	0	126	n/a	125
P ₂ O ₅	75-110	55-66	21	62	97	50	17	34	0	72	45	45
K ₂ O	130-240	39-44	113	8	127	161	67	25	0	36	100	67
Ca	25-50	1	73	946	485	435	83	235	1197	0	n/a	n/a
Mg	18-30	13	25	61	47	58	15	14	656	0	n/a	n/a
S	13-16	10-11	12	9	352	217	171	192	0	144	n/a	n/a
C	n/a	n/a	1086	2962	3016	1414	1498	1128	0	0	n/a	n/a
C:N	n/a	n/a	9	23	17	Low	13	5	Low	0	n/a	n/a
pH	6-6.5	6-6.5	8	8	6	12	6.3	7	12	acidic	n/a	n/a
Other	n/a	n/a	Micros	Micros	Micros	Micros	Spreadable	Spreadable	Long	Low Rate	n/a	n/a
Benefits	n/a	n/a	Soil builder	Soil builder	Soil builder++	33% CaCO ₃	SlowReIN	SlowReIN	Lasting	Easy to apply	n/a	n/a

Grain Corn @ 4.2 t/ac or 150 bu/ac

Cdn Fertilizer Institute, Eastern Cdn, 2001

24 Feb 11 PT

			Incorp Dairy	Incorp Beef	Compost		Organic	Lob/Crab		Fert 1/3 band	Typical	Typical
	Uptake	Removal	Manure as is	Manure as is	as is	Ash as is	Pellet	Meal	Dol Lime	21-12-6-24	Soil Test	Soil Test
Unit	lbs/ac	lbs/ac	5000 USG/ac	10 t/ac	10 t/ac	5 t/ac	2 t/ac	1.5 t/ac	3 t/ac	600 lbs/ac	NB	Recomm
			7% dm	46% dm	50.3% dm	70% dm	90% dm	93.1% dm	95% dm	100% dm		
			lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lb/ac	ppm	lbs/ac
N	170-240	100-150	73	22	54	0	80	112	0	126	n/a	125
P ₂ O ₅	75-110	55-66	21	62	97	50	17	34	0	72	45	45
K ₂ O	130-240	39-44	113	8	127	161	67	25	0	36	100	67
Ca	25-50	1	73	946	485	435	83	235	1197	0	n/a	n/a
Mg	18-30	13	25	61	47	58	15	14	656	0	n/a	n/a
S	13-16	10-11	12	9	352	217	171	192	0	144	n/a	n/a
C	n/a	n/a	1086	2962	3016	1414	1498	1128	0	0	n/a	n/a
C:N	n/a	n/a	9	23	17	Low	13	5	Low	0	n/a	n/a
pH	6-6.5	6-6.5	8	8	6	12	6.3	7	12	acidic	n/a	n/a
Other	n/a	n/a	Micros	Micros	Micros	Micros	Spreadable	Spreadable	Long	Low Rate	n/a	n/a
Benefits	n/a	n/a	Soil builder	Soil builder	Soil builder++	33% CaCO ₃	SlowReIN	SlowReIN	Lasting	Easy to apply	n/a	n/a

Soybean @ 1.5 t/ac or 50 bu/acCdn Fertilizer Institute, Eastern Cdn, 2001

24 Feb 11 PT

			Incorp Dairy	Incorp Beef	Compost		Organic	Lob/Crab		Fert	Typical	Typical
	Uptake	Removal	Manure as is	Manure as is	as is	Ash as is	Pellet	Meal	Dol Lime	21-12-6-24	Soil Test	Soil Test
Unit	lbs/ac	lbs/ac	5000 USG/ac	10 t/ac	10 t/ac	5 t/ac	2 t/ac	1.5 t/ac	3 t/ac	200 lbs/ac	NB	Recomm
			7% dm	46% dm	50.3% dm	70% dm	90% dm	93.1% dm	95% dm	100% dm		
			lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lb/ac	ppm	lbs/ac
N	230-290	187-200	73	22	54	0	80	112	0	42	n/a	0
P ₂ O ₅	40-50	40-44	21	62	97	50	17	34	0	24	45	22
K ₂ O	120-220	69-70	113	8	127	161	67	25	0	12	100	53
Ca	25-30	9-11	73	946	485	435	83	235	1197	0	n/a	n/a
Mg	20-25	7-9	25	61	47	58	15	14	656	0	n/a	n/a
S	17	5	12	9	352	217	171	192	0	48	n/a	n/a
C	n/a	n/a	1086	2962	3016	1414	1498	1128	0	0	n/a	n/a
C:N	n/a	n/a	9	23	17	Low	13	5	Low	0	n/a	n/a
pH	6-7	6-7	8	8	6	12	6.3	7	12	acidic	n/a	n/a
Other	n/a	n/a	Micros	Micros	Micros	Micros	Spreadable	Spreadable	Long	Low Rate	n/a	n/a
Benefits	n/a	n/a	Soil builder	Soil builder	Soil builder++	33% CaCO ₃	SlowReIN	SlowReIN	Lasting	Easy to apply	n/a	n/a

Alfalfa @ 5 t/acCdn Fertilizer Institute, Eastern Cdn, 2001

24 Feb 11 PT

			Incorp Dairy	Incorp Beef	Compost		Organic	Lob/Crab		Fert	Typical	Typical
	Uptake	Removal	Manure as is	Manure as is	as is	Ash as is	Pellet	Meal	Dol Lime	21-12-6-24	Soil Test	Soil Test
Unit	lbs/ac	lbs/ac	5000 USG/ac	10 t/ac	10 t/ac	5 t/ac	2 t/ac	1.5 t/ac	3 t/ac	150 lbs/ac	NB	Recomm
			7% dm	46% dm	50.3% dm	70% dm	90% dm	93.1% dm	95% dm	100% dm		
	Range	Range	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lb/ac	ppm	lbs/ac
N	n/a	170-240	73	22	54	0	80	112	0	32	n/a	25
P ₂ O ₅	n/a	75-110	21	62	97	50	17	34	0	18	45	45
K ₂ O	n/a	130-240	113	8	127	161	67	25	0	9	100	61
Ca	n/a	25-50	73	946	485	435	83	235	1197	0	n/a	n/a
Mg	n/a	18-30	25	61	47	58	15	14	656	0	n/a	n/a
S	n/a	13-16	12	9	352	217	171	192	0	36	n/a	n/a
C	n/a	n/a	1086	2962	3016	1414	1498	1128	0	0	n/a	n/a
C:N	n/a	n/a	9	23	17	Low	13	5	Low	0	n/a	n/a
pH	6.5-7	6.5-7	8	8	6	12	6.3	7	12	acidic	n/a	n/a
Other	n/a	n/a	Micros	Micros	Micros	Micros	Spreadable	Spreadable	Long	Low Rate	n/a	n/a
Benefits	n/a	n/a	Soil builder	Soil builder	Soil builder++	33% CaCO ₃	SlowReIN	SlowReIN	Lasting	Easy to apply	n/a	n/a

Cabbage @ 35 t/acCdn Fertilizer Institute, Eastern Cdn, 2001

24 Feb 11 PT

			Incorp Dairy	Incorp Beef	Compost		Organic	Lob/Crab		Fert	Typical	Typical
	Uptake	Removal	Manure as is	Manure as is	as is	Ash as is	Pellet	Meal	Dol Lime	21-12-6-24	Soil Test	Soil Test
Unit	lbs/ac	lbs/ac	5000 USG/ac	10 t/ac	10 t/ac	5 t/ac	2 t/ac	1.5 t/ac	3 t/ac	700 lbs/ac	NB	Recomm
			7% dm	46% dm	50.3% dm	70% dm	90% dm	93.1% dm	95% dm	100% dm		
	Range	Range	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lb/ac	ppm	lbs/ac
N	225-270	225-270	73	22	54	0	80	112	0	147	n/a	134
P ₂ O ₅	65-85	65-85	21	62	97	50	17	34	0	84	45	80
K ₂ O	250-280	250-280	113	8	127	161	67	25	0	42	100	80
Ca	84	84	73	946	485	435	83	235	1197	0	n/a	n/a
Mg	35-36	35-36	25	61	47	58	15	14	656	0	n/a	n/a
S	65-80	65-80	12	9	352	217	171	192	0	168	n/a	n/a
C	n/a	n/a	1086	2962	3016	1414	1498	1128	0	0	n/a	n/a
C:N	n/a	n/a	9	23	17	Low	13	5	Low	0	n/a	n/a
pH	6-6.5	6-6.5	8	8	6	12	6.3	7	12	acidic	n/a	n/a
Other	n/a	n/a	Micros	Micros	Micros	Micros	Spreadable	Spreadable	Long	Low Rate	n/a	n/a
Benefits	n/a	n/a	Soil builder	Soil builder	Soil builder++	33% CaCO ₃	SlowReIN	SlowReIN	Lasting	Easy to apply	n/a	n/a

RB Potato @ 20 t/ac or 400 cwt/ac**Cdn Fertilizer Institute, Eastern Cdn, 2001**

24 Feb 11 PT

			Incorp Dairy	Incorp Beef	Compost		Organic	Lob/Crab		Fert	Typical	Typical
	Uptake	Removal	Manure as is	Manure as is	as is	Ash as is	Pellet	Meal	Dol Lime	21-12-6-24	Soil Test	Soil Test
Unit	lbs/ac	lbs/ac	5000 USG/ac	10 t/ac	10 t/ac	5 t/ac	2 t/ac	1.5 t/ac	3 t/ac	900 lbs/ac	NB	Recomm
			7% dm	46% dm	50.3% dm	70% dm	90% dm	93.1% dm	95% dm	100% dm		
	Range	Range	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lbs/ac	lb/ac	ppm/P/Al	lbs/ac
N	210-230	125-135	73	22	54	0	80	112	0	189	n/a	185
P ₂ O ₅	65-75	35-50	21	62	97	50	17	34	0	108	45	134-160
K ₂ O	300-440	210-250	113	8	127	161	67	25	0	54	100	187
Ca	20	5	73	946	485	435	83	235	1197	0	n/a	n/a
Mg	40	10	25	61	47	58	15	14	656	0	n/a	n/a
S	18	10-12	12	9	352	217	171	192	0	216	n/a	n/a
C	n/a	n/a	1086	2962	3016	1414	1498	1128	0	0	n/a	n/a
C:N	n/a	n/a	9	23	17	Low	13	5	Low	0	n/a	n/a
pH	5.5-6.5	n/a	8	8	6	12	6.3	7	12	acidic	n/a	n/a
Other	n/a	n/a	Micros	Micros	Micros	Micros	Spreadable	Spreadable	Long	Low Rate	n/a	n/a
Benefits	n/a	n/a	Soil builder	Soil builder	Soil builder++	33% CaCO ₃	SlowReIN	SlowReIN	Lasting	Easy to apply	n/a	n/a

Questions!!!