CHOLINE CHLORIDE HAS NO SUBSTITUTE.

balchem ANIMAL NUTRITION & HEALTH

Betaine cannot fully replace choline in monogastric diets. Here's why it matters to your bottom line.



◆ WHY BALCHEM CHOLINE CHLORIDE

GLOBAL LEADER
Broadest portfolio
Global leader in choline chloride, with an extensive range of **GMO** and **non-GMO** options.

EU + US
Multi-site manufacturing
Production in Europe and the United States for reliable, secure supply.

CERTIFIED
Uncompromising quality
Purity, consistency, reliability and choline concentration, backed by the most stringent standards.

SCIENCE-LED
Research & sustainability
Leader in choline research in humans and animals, with a mission to make the world a healthier place.

USA: FAMI-QS • Safe Feed/Safe Food EU: FAMI-QS • ISO 9001 • ISO 14001 • SEDEX • ISO 22000 / FSSC 22000 (GFSI)

QUALITY TESTING PARAMETERS

✓ **Choline Activity Level** ✓ **Ethylene Oxide Level** ✓ **Heavy Metals** ✓ **Microorganisms*** ✓ **Density***
✓ **Mycotoxins** ✓ **Trimethylamine** ✓ **Dioxins** ✓ **Pesticides***

HOW CHOLINE BENEFITS YOUR CUSTOMERS

+66 tonnes
More meat to sell
~66 g more carcass per bird; about 66 t per 1 million birds at the top dose

-2.5%
Lower feed cost
FCR improved from 1.63 to ~1.59, so less feed per kg of gain

+0.95 pts
More saleable fillet weight
Fillets lost 0.60% to drip with choline vs. 1.55% with betaine under heat stress

1 for 5
One ingredient, every job
Choline covers all five functions; betaine alone leaves three gaps

1 METABOLIC
Choline performs every function betaine performs, plus membrane synthesis and acetylcholine
Switching from choline to betaine subtracts two essential functions; switching from betaine to choline subtracts none

Essential metabolic function	CHOLINE	BETAINE
Builds cell membranes (phosphatidylcholine)	✓	
Nervous system function (acetylcholine)	✓	
Methyl donor for methionine synthesis	✓	✓
Fat metabolism; prevents fatty liver	✓	✓
Supports cell-volume regulation	✓	✓
SCORE	**5 / 5**	**3 / 5**

2 PERFORMANCE *Growth, efficiency, yield*

3.2×
More effective than betaine at increasing broiler growth.
Dilger et al., 2007

+1.9 pts
Carcass yield (73.4% → 75.3%) with better FCR.
Gregg et al., 2023

3 OSMOREGULATION *Heat stress, half the dose*

½ dose
Choline (500 ppm) matched betaine (1,000 ppm) on water balance.
Kpodo et al., 2020

-61%
Breast meat drip loss vs. betaine (0.60% vs. 1.55%).
Kpodo et al., 2020

FORMULATE FOR CHOLINE FIRST. Choline can become betaine, but betaine cannot become choline.

PuraChol™ Choline Chloride

Balchem Corporation
5 Paragon Drive
Montvale, NJ 07645

Balchem Italia
Via del Porto Snc
28040 Marano Ticino (NO)
Italy

Website: balchem.com
E-Mail: anh.marketing@balchem.com

*EU Only. Sources: Dilger et al., J. Nutr. 2007; Gregg et al., Animals 2023 (Balchem-funded; ≥1,200 mg/kg choline chloride, reduced-methionine diets, summer conditions); Kpodo et al., Int. J. Poult. Sci. 2020 (partially Balchem-funded). Broiler data; results in individual operations will vary. Image generated with Microsoft Copilot. © 2026 Balchem Corporation. 2611-001