



# Montana Microbial Products

## Barley Protein Concentrate Specifications

### Guaranteed Analysis

#### “as shipped” basis

|                    | %               |
|--------------------|-----------------|
| Ash .....          | 3.6             |
| Crude fat.....     | 10.0            |
| Crude fiber.....   | 5.0             |
| Moisture .....     | <10             |
| Crude Protein..... | 60.0            |
| Carbohydrate.....  | 11.4            |
|                    | (by difference) |

### Amino Acid Profile

#### % total weight, 16 amino acids

|       |              |
|-------|--------------|
| Ala   | 2.51         |
| Arg   | 3.13         |
| Asp   | 3.47         |
| Glu   | 14.67        |
| Gly   | 2.25         |
| His   | 1.30         |
| Ile   | 2.26         |
| Leu   | 4.37         |
| Lys   | 2.13         |
| Met   | 0.98         |
| Phe   | 3.52         |
| Pro   | 7.15         |
| Ser   | 3.01         |
| Thr   | 2.28         |
| Tyr   | 2.16         |
| Val   | 2.80         |
| TOTAL | <u>57.99</u> |

| Mycotoxin     | BPC 2010 | BPC 2009 | BPC #3 |
|---------------|----------|----------|--------|
|               | ppm      | ppm      | ppm    |
| Vomi toxin    | <0.5     | <0.5     | <0.5   |
| T-2 Tetra01   | <0.5     | <0.5     | <0.5   |
| Fusarenone-X  | <0.5     | <0.5     | <0.5   |
| 3-Acetyl DON  | <0.5     | <0.5     | <0.5   |
| 15-Acetyl DON | <0.5     | <0.5     | <0.5   |
| DAS           | <0.5     | <0.5     | <0.5   |
| T-2 Trio1     | <0.5     | <0.5     | <0.5   |
| T-2 Toxin     | <0.5     | <0.5     | <0.5   |
| Iso T-2 Toxin | <0.5     | <0.5     | <0.5   |
| Scirpentriol  | <0.5     | <0.5     | <0.5   |
| Nivalenol     | <0.5     | <0.5     | <0.5   |
| 15-Acet-Scirp | <0.5     | <0.5     | <0.5   |
| Neosolaniol   | <0.5     | <0.5     | <0.5   |
| HT-2 Toxin    | <0.5     | <0.5     | <0.5   |
| Acetyl T-2    | <0.5     | <0.5     | <0.5   |
| Zearalenol    | <0.5     | <0.5     | <0.5   |
| Zearalenone   | <0.5     | <0.5     | <0.5   |
| Aflatoxin B1  | <0.02    | <0.02    | <0.02  |
| Fumonisin B1  | <2.0     | <2.0     | <2.0   |

The practical quantitation limit (PQL) is 0.5 ppm for the first 17 mycotoxins. The Aflatoxin PQL is 0.02 ppm and the Fumonsin PQL is 2 ppm.

Barley protein concentrate is a coarse dry powder. Stable for at least 2 years if kept below 10% moisture. Contamination specification: Less than 10,000 total microbes per gram. Enteric bacteria negative at detection limits. Approved by the US Food and Drug Administration as Generally Recognized as Safe (GRAS) as a protein ingredient for aquaculture feeds.