CLAIMS

1. A canola germplasm conferring on a canola seed at least 45% crude protein content and not more than 18% acid detergent fiber content on an oil-free dry matter basis, wherein the canola seed further comprises at least one additional trait selected from the group consisting of: a phosphorus content of at least 1.1%, and a combined lignin/polyphenolic content of less than 6%.

2. A canola seed comprising the canola germplasm of claim 1, wherein the canola seed comprises at least 45% crude protein content on an oil-free, dry matter basis.

3. The canola seed of claim 2, further comprising not more than 18% acid detergent fiber content on an oil-free, dry matter basis.

4. The canola seed of claim 2, further comprising at least one additional trait selected from the group consisting of: a phosphorus content of at least 1.1%, and a combined lignin/polyphenolic content of less than 6%.

5. A canola plant comprising the canola germplasm of claim 1.

6. The canola plant of claim 5, wherein the canola plant produces canola seed that comprises at least 45% crude protein content on an oil-free dry matter basis.

7. The canola plant of claim 5, wherein the canola plant produces canola seed that comprises a combined lignin/polyphenolic content of less than 6%.

8. The canola plant of claim 5, wherein the canola plant produces canola seed that comprises at least 43% oil.

9. The canola plant of claim 5, wherein the canola plant produces canola seed that comprises not more than 18% acid detergent fiber on an oil-free dry matter basis.

10. A field comprising the canola plants of claim 5, wherein the canola plants yield an average of at least 1700 kilograms of seed per hectare.

11. The canola plant of claim 5, wherein the canola plant is selected from the group consisting of CL065620 (ATCC No. PTA-11697), CL044864 (ATCC No. PTA-11696), CL121460H (ATCC No. PTA-11698), CL166102H (ATCC No. PTA-12570), and CL121466H (ATCC No. PTA-11699).

12. The canola plant of claim 5, wherein the plant is CL044864 (ATCC No. PTA-11696).

13. The canola plant of claim 5, wherein the plant is produced without genetic engineering or mutagenesis.

14. The canola plant of claim 5, wherein the canola plant produces canola seed that comprises a phosphorous content of more than 1.3% on an oil-free, dry matter basis.

15. A seed produced by the canola plant of claim 5, wherein the seed is available under an ATCC deposit numbers selected from PTA11696, PTA11697, PTA11698, PTA11699 or PTA-12570.

16. A canola seed which is genetically stable for producing meal comprising at least 45% crude protein content, and not more than 18% acid detergent fiber on an oil-free, dry mass basis, wherein the canola seed is produced from an elite canola cultivar, and wherein the canola seed is genetically stable for producing the meal further comprising at least one additional trait selected from the group consisting of at least 1.1% phosphorus content, and less than 6% combined lignin/polyphenolic content.

17. The canola seed of claim 16, comprising at least 45% crude protein content on an oil-free, dry matter basis.

18. The canola seed of claim 16, further comprising not more than 18% acid detergent fiber content.

19. The canola seed of claim 16, further comprising at least one additional trait selected from the group consisting of at least 1.1% phosphorus content, and less than 6% combined lignin/polyphenolic content.

20. Canola meal produced from the seeds of any one of claims 16 through 19.

21. A method of introducing desirable trait into a canola cultivar, wherein the method comprises:

crossing the plant of claim 5 with a plant of a second, different canola cultivar to produce F_1 progeny plants;

selecting one or more progeny plants that have the desired trait(s) to produce selected progeny plants;

backcrossing the selected progeny plants with the plant of claim 5 to produce backcross progeny plants;

selecting for backcross progeny plants that have the desired trait(s) and physiological and morphological characteristics of the second, different canola cultivar to produce selected backcross progeny plants; and

repeating the backcrossing and selection steps three or more times to produce inbred selected fourth or higher backcross progeny plants that comprise the desired trait(s),

wherein the desirable trait comprises the canola plant produces a canola seed having at least one of the following traits: at least 45% crude protein content, not more than 18% acid detergent fiber content, at least 1.1% phosphorus content, or less than 6% of the combined lignin/polyphenolic content based on an oil-free dry matter basis.

22. The method according to claim 21, wherein the desired traits comprise at least 45% crude protein content, and not more than 18% acid detergent fiber content.

23. A canola meal obtainable directly from a canola seed comprising the canola germplasm of claim 1.

24. The canola meal of claim 23, comprising at least 45% crude protein content.

25. The canola meal of claim 23, comprising not more than 18% acid detergent fiber content.

26. The canola meal of claim 23, comprising a combined lignin/polyphenolic content of less than 6%.

27. The canola meal of claim 23, comprising a phosphorous content of less than 1.1%.

28. The canola meal of claim 23, wherein the canola meal may replace other, different, conventional canola meal or soybean meal as a protein or energy supplement in the diet of poultry, swine, or ruminants.

29. The canola plant of claim 5, wherein the plant is CL166102H (ATCC No. PTA-12570).

30. A canola plant selected from the group consisting of CL065620 (ATCC No. PTA-11697), CL044864 (ATCC No. PTA-11696), CL121460H (ATCC No. PTA-11698), CL166102H (ATCC No. PTA-12570), and CL121466H (ATCC No. PTA-11699).