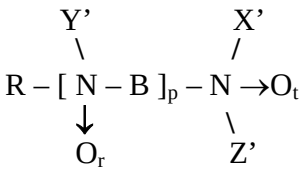
We claim:

1. A method of enhancing the efficacy of agricultural formulations comprising at least one agricultural active, said method comprising adding to said formulation a nitrogen containing surfactant having the following general structure:



where R is C6 – C22 linear or branched, saturated or non-saturated hydrocarbon group; B = C2 – C6 alkyl; p = 0 – 5; r = 0 – 1; t = 0 – 1; X', Y', and Z' independently are CH_3 (methyl) or a polyalkoxide group with 1 to 20 alkoxide units; with the provisos that (1) the said surfactant has at least one amine oxide group and (2) when p = 0 and t = 1, X' and Z' are not a methyl group at the same time, and one of X' and Z' is a methyl group and the other is the polyalkoxide group, and wherein said at least one agricultural active is glyphosate, 2,4-D, dicamba, glufosinate, atrazine, or a mixture thereof.

2. The method of claim 1 wherein p > 0.

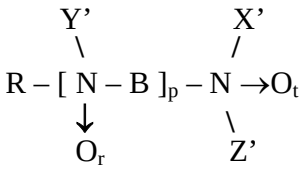
3. The method of claim 1 wherein p = 0 and X' and Z' are ethyleneoxide groups with 1 – 20 EO units.

4. The method of claim 3 wherein the number of the ethyleneoxide groups is 3 – 15 EO units.

5. The method of any one of claims 1 to 4 wherein the agricultural formulations comprise herbicide.

6. The method of any one of claims 1 to 5 wherein the agricultural active is glyphosate and the Na ion concentration in said glyphosate formulations is > 0.035%.

7. An agricultural formulation comprising at least one agricultural active, and at least one nitrogen-containing surfactant of the following general structure:



where R is C6 – C22 linear or branched, saturated or non-saturated hydrocarbon group; B = C2 – C6 alkyl; p = 0 – 5; r = 0 – 1; t = 0 – 1; X', Y', and Z' independently are CH3 (methyl) or a polyalkoxide group with 1 to 20 alkoxide units; with the provisos that (1) the said surfactant has at least one amine oxide group and (2) when p = 0 and t = 1, X' and Z' are not a methyl group at the same time, and one of X' and Z' is a methyl group and the other is the polyalkoxide group, and wherein said at least one agricultural active is glyphosate, 2,4-D, dicamba, glufosinate, atrazine, or a mixture thereof.

8. The agricultural formulation of claim 7 wherein p > 0.

9. The agricultural formulation of claim 7 wherein p = 0 and X' and Z' are ethoxyleneoxide groups with 1 – 20 EO units.

10. The agricultural formulation of claim 9 wherein the number of ethoxyleneoxide groups is 3-15 EO units.