We claim:

**1.** A fatty amide comprising a reaction product of a metathesis-derived $C_{10}$-$C_{17}$ monounsaturated acid, octadecene-1,18-dioic acid, or their ester derivatives with ammonia or a primary or secondary amine.

**2.** A derivative made by one or more of reducing, quaternizing, sulfonating, alkoxylating, sulfating, and sulfitating the amide of claim **1**.

**3.** The amide of claim **1** wherein the acid or ester derivative reactant has at least 1 mole % of *trans*-$\Delta^9$ unsaturation.

**4.** The amide of claim **1** wherein the amine has at least one N or O atom bonded to a carbon that is beta or gamma to the N atom of the amine.

**5.** The amide of claim **1** having the formula:

$$R^1CO\text{-}NR^2R^3$$

where $R^1$ is $R^4$-$C_9H_{16}$- or $R^5O_2C$-$C_{16}H_{30}$- ; $R^4$ is hydrogen or $C_1$-$C_7$ alkyl; $R^5$ is substituted or unsubstituted alkyl, aryl, alkenyl, oxyalkylene, polyoxyalkylene, glyceryl ester, or a mono- or divalent cation; and each of $R^2$ and $R^3$ is independently H, $C_1$-$C_6$ alkyl, or $-CH_2CH_2OR^6$ where $R^6$ is H or $C_1$-$C_6$ alkyl.

**6.** The amide of claim **1** wherein the amine is selected from the group consisting of ethanolamine, N-methylethanolamine and diethanolamine.

**7.** The amide of claim **1** wherein the amine is 2-aminoethylethanolamine (AEEA) and the amide is an imidazoline ester.

**8.** The amide of claim **1** wherein the amine is diethylenetriamine (DETA) and the amide is an imidazoline amide.

**9.** The amide of claim **1** wherein the ester derivative is a modified triglyceride made by self-metathesis of a natural oil.

**10.** The amide of claim **9** wherein the natural oil is selected from the group consisting of soybean oil, palm oil, rapeseed oil, algal oil, and mixtures thereof.

**11.** The amide of claim **1** wherein the ester derivative is an unsaturated triglyceride made by cross-metathesis of a natural oil with an olefin.

**12.** The amide of claim **11** wherein the natural oil is selected from the group consisting of soybean oil, palm oil, rapeseed oil, algal oil, and mixtures thereof, and the olefin is a $C_2$-$C_8$ α-olefin or a $C_4$-$C_9$ internal olefin.

**13.** The amide of claim **1** wherein the $C_{10}$-$C_{17}$ monounsaturated acid or ester derivative comprises a $C_{10}$ and a $C_{12}$ monounsaturated acid or ester derivative.

**14.** The amide of claim **1** wherein the $C_{10}$-$C_{17}$ monounsaturated acid or ester derivative comprises a $C_{10}$ and a $C_{14}$ monounsaturated acid or ester derivative.

**15.** The amide of claim **1** wherein the $C_{10}$-$C_{17}$ monounsaturated acid or ester derivative comprises a $C_{10}$ and a $C_{16}$ monounsaturated acid or ester derivative.

**16.** An anionic emulsifier for agricultural compositions comprising the fatty amide of claim **1**.

**17.** An anionic emulsifier for agricultural compositions comprising the fatty amide derivative of claim **2**.

**18.** A nonionic emulsifier for agricultural compositions comprising the fatty amide of claim **1**.

**19.** A nonionic emulsifier for agricultural compositions comprising the fatty amide derivative of claim **2**.

**20.** A dispersant for agricultural compositions comprising the fatty amide of claim **1**.

**21.** A dispersant for agricultural compositions comprising the fatty amide derivative of claim **2**.

**22.** A water-soluble herbicide composition comprising the fatty amide of claim **1**.

**23.** A water-soluble herbicide composition comprising the fatty amide derivative of claim **2**.

**24.** An agricultural solvent comprising the fatty amide of claim **1**.

**25.** An agricultural solvent comprising the fatty amide derivative of claim **2**.

**26.** An antimicrobial composition comprising the fatty amide of claim **1**.

**27.** An antimicrobial composition comprising the fatty amide derivative of claim **2**.

**28.** An aqueous hard-surface cleaner comprising the fatty amide of claim **1**.

**29.** An aqueous hard-surface cleaner comprising the fatty amide derivative of claim **2**.

**30.** An industrial hard-surface cleaner comprising the fatty amide of claim **1**.

**31.** An industrial hard-surface cleaner comprising the fatty amide derivative of claim **2**.

**32.** A laundry detergent formulation comprising the fatty amide of claim **1**.

**33.** A laundry detergent formulation comprising the fatty amide derivative of claim **2**.

**34.** A shampoo or hair conditioner comprising the fatty amide of claim **1**.

**35.** A shampoo or hair conditioner comprising the fatty amide derivative of claim **2**.

**36.** A personal cleanser or handsoap comprising the fatty amide of claim **1**.

**37.** A personal cleanser or handsoap comprising the fatty amide derivative of claim **2**.

**38.** A corrosion inhibitor for use in oilfield applications comprising the fatty amide of claim **1**.

**39.** A corrosion inhibitor for use in oilfield applications comprising the fatty amide derivative of claim **2**.

**40.** A paraffin dispersant for use in oilfield applications comprising the fatty amide of claim **1**.

**41.** A paraffin dispersant for use in oilfield applications comprising the fatty amide derivative of claim **2**.

**42.** A paint or coating additive composition comprising the fatty amide of claim **1**.

**43.** A paint or coating additive composition comprising the fatty amide derivative of claim **2**.

We claim:

**1.** A composition comprising:

(i) a fatty amide reaction product of a monounsaturated acid selected from the group consisting of 9-decenoic acid, 9-undecenoic acid, 9-dodecenoic acid, 9-tridecenoic acid, 9-tetradecenoic acid, 9-pentadecenoic acid, 9-hexadecenoic acid, 9-heptadecenoic acid, and octadecene-1,18-dioic acid, or its ester derivative with ammonia or a primary or secondary amine, wherein the primary or secondary amine has one or two hydrogens attached to the amino group and the remaining groups are $C_1$-$C_{10}$ alkyl, $C_2$-$C_4$ hydroxyalkyl, or alkoxylated $C_2$-$C_4$ hydroxyalkyl;

(ii) an imidazoline amide or ester reaction product of diethylenetriamine, (2-aminoethyl)ethanolamine (AEEA), or alkoxylated AEEA with two equivalents of a monounsaturated acid selected from the group consisting of 9-decenoic acid, 9-undecenoic acid, 9-dodecenoic acid, 9-tridecenoic acid, 9-tetradecenoic acid, 9-pentadecenoic acid, 9-hexadecenoic acid, 9-heptadecenoic acid, and octadecene-1,18-dioic acid, or its ester derivative; or

(iii) a reduced, quaternized, sulfonated, alkoxylated, sulfated, and/or sulfitated derivative of the fatty amide (i) or the imidazoline amide or ester (ii);

wherein the monounsaturated acid or its ester derivative has terminal $\Delta^9$ unsaturation or at least 1 mole % of *trans*-$\Delta^9$ unsaturation.

**2.** The composition of claim **1** wherein the monounsaturated acid or its ester derivative has at least 50 mole % of *trans*-$\Delta^9$ unsaturation.

**3.** The composition of claim **1** wherein the primary or secondary amine has at least one N or O atom bonded to a carbon that is beta or gamma to the N atom of the amine.

**4.** The composition of claim **1** wherein the fatty amide has the formula:

$$R^1CO\text{-}NR^2R^3$$

where $R^1$ is $R^4$-$C_9H_{16}$- or $R^5O_2C$-$C_{16}H_{30}$-; $R^4$ is hydrogen or $C_1$-$C_7$ alkyl; $R^5$ is substituted or unsubstituted alkyl, aryl, alkenyl, oxyalkylene, polyoxyalkylene, glyceryl ester, or a mono- or divalent cation; and each of $R^2$ and $R^3$ is independently H, $C_1$-$C_6$ alkyl, or -$CH_2CH_2OR^6$ where $R^6$ is H or $C_1$-$C_6$ alkyl.

**5.** The composition of claim **1** wherein the primary or secondary amine is selected from the group consisting of ethanolamine, N-methylethanolamine and diethanolamine.

**6.** The composition of claim **1** wherein

(i) the amine is 2-aminoethylethanolamine and the composition comprises an imidazoline ester or

(ii) the amine is diethylenetriamine and the composition comprises an imidazoline amide.

**7.** The composition of claim **1** wherein the monounsaturated acid or its ester derivative comprises

(i) a $C_{10}$ and a $C_{12}$ monounsaturated acid or ester derivative;

(ii) a $C_{10}$ and a $C_{14}$ monounsaturated acid or ester derivative; or

(iii) a $C_{10}$ and a $C_{16}$ monounsaturated acid or ester derivative.

**8.** An anionic emulsifier for agricultural compositions, a nonionic emulsifier for agricultural compositions, a dispersant for agricultural compositions, a water-soluble herbicide composition, or an agricultural solvent each comprising the composition of claim **1**.

**9.** An antimicrobial composition comprising the composition of claim **1**.

**10.** An aqueous hard-surface cleaner, an industrial hard-surface cleaner, a laundry detergent formulation, a shampoo or hair conditioner, or a personal cleanser or handsoap each comprising the composition of claim **1**.

**11.** A corrosion inhibitor or paraffin dispersant for use in oilfield applications comprising the composition of claim **1**.

**12.** A paint or coating additive composition comprising the composition of claim **1**.