WHAT IS CLAIMED IS:

1. An aerial fluid delivery system (100) comprising:

an unmanned aerial vehicle (UAV) (102) comprising a body;

a liquid dispensing system (112) mounted to the UAV (102); and

a collapsible liquid storage container (104) releasably mountable to the UAV (102), characterized in:

the liquid storage container (104) containing a pre-dosed amount (214) of a chemical product (212) and comprising at least one fluid coupler (204), the liquid stotage container (104) configured to receive a liquid via the at least one fluid coupler (204) to form a liquid mixture with the chemical product (212), wherein the at least one fluid coupler (204) is adapted to fluidly couple the liquid storage container (104) to the liquid dispensing system (112) of the UAV (102) for dispensing the liquid mixture therethrough;

wherein the at least one fluid coupler (204) comprises a single fluid coupler that functions as both an inlet for receiving liquid into the liquid storage container (104) to mix with the chemical product (212) and form the liquid mixture, and an outlet for supplying the liquid mixture to the liquid dispensing system (112).

2. The aerial fluid delivery system of claim 1, wherein the liquid storage container (104) includes a fill line indicator (220) that corresponds to a liquid filling level of the liquid storage container (104) needed to achieve a pre-determined concentration of the liquid mixture; and/or

wherein the liquid storage container (104) is constructed from at least one of a transparent material and a translucent material.

3. The aerial fluid delivery system of claim 1 or claim 2, wherein the liquid storage container (104) comprises a bag including at least one sidewall (208) constructed of a flexible film.

4. The aerial fluid delivery system of claim 3, wherein the liquid storage container (104) is constructed from at least one of plastic, polyethylene, modified rubber, polyethylene terephthalate, nylon, Valèron, and film laminates; and/or

wherein the flexible film has a thickness from about 3 mil to 6.5 mil; and/or

wherein the flexible film has an areal density of less than $0.15 g/cm^2$.

5. The aerial fluid delivery system of any one of the preceding claims, wherein the liquid storage container (104) comprises a unique identifier tag (310) configured to wirelessly communicate with a controller (142) of the UAV (102) to identify at least one of a type of the chemical product (212) contained within the liquid storage container (104) and an amount of the chemical product (212) contained within the liquid storage container (104).

6. The aerial fluid delivery system of any one of the preceding claims, further comprising a frame (114) coupled to the UAV body (106), wherein the collapsible liquid storage container (104) is releasably mountable to the UAV (102) by the frame (114).

7. The aerial fluid delivery system of claim 6, wherein the frame (114) is releasably coupled to the UAV body (106); and/or

wherein a bottom (122) of the frame (114) is coupled to a top (116) of the UAV body (106); and/or

wherein, when the liquid storage container (104) is mounted to the UAV (102) by the frame (114), a top (242) of the liquid storage container (104) is located above a top (116) of the UAV body (106), and a bottom (244) of the liquid storage container (104) is located below the top (116) of the UAV body (106).

8. The aerial fluid delivery system of any one of the preceding claims, wherein the chemical product (212) comprises at least one of a fertilizer, an insecticide, a fungicide, a nematocide, a bactericide, an acaricide, a herbicide, a herbicide safener, a growth regulator, a chemosterilant, a semiochemical, a repellent, an attractant, a pheromone, and a feeding stimulant; and/or

wherein the chemical product (212) comprises at least one invertebrate pest control agent.

9. A method characterized by comprising:

introducing a liquid into a collapsible storage container (104) that contains a predosed amount (214) of a chemical product (212) to form a liquid mixture, the liquid storage container (104) including at least one coupler (204);

releasably mounting the liquid storage container (104) to an unmanned aerial vehicle (UAV) (102);

fluidly coupling the liquid storage container (104) to a liquid dispensing system (112) mounted to the UAV (102) using the at least one coupler (204); and

dispensing the liquid mixture from the UAV (102) using the liquid dispensing system (112);

wherein the at least one fluid coupler (204) comprises a single fluid coupler;

wherein introducing a liquid into the collapsible liquid storage container (104) comprises introducing the liquid into the liquid storage container (104) via the fluid coupler (204); and

wherein fluidly coupling the liquid storage container (104) to a liquid dispensing system (112) comprises fluidly coupling the liquid storage container (104) to the liquid dispensing system (112) via the same fluid coupler (204).

10. The method of claim 9, wherein introducing a liquid into a collapsible liquid storage container (104) includes filling the collapsible liquid storage container (104) to a fill line indicator (220) that corresponds to a liquid filling level of the liquid storage container (104) needed to achieve a predetermined concentration of the liquid mixture.

11. The method of claim 9 or claim 10, wherein dispensing the liquid mixture from the UAV (102) comprises:

operating the UAV (102) such that the UAV flies over a field; and

dispensing the liquid mixture from the UAV (102) while the UAV is flying over the field such that the liquid mixture is applied to the field.

12. The method of any one of claims 9 to 11, wherein releasably mounting the liquid storage container (104) to a UAV comprises releasably mounting the liquid storage container (104) to the UAV (102) using a frame (114) coupled to a body (106) of the UAV.

13. The method of claim 12 further comprising removably coupling the frame (114) to the UAV body (106).

14. A collapsible liquid storage container (104) comprising:

a flexible sidewall (208) constructed of an ultra-lightweight material, the sidewall at least partially defining a cavity (210); and characterized by comprising:

a pre-dosed amount (214) of a chemical product (212) disposed within the cavity;

at least one mechanical coupler (306) coupled to the sidewall (208) and configured for releasable coupling to an unmanned aerial vehicle (UAV) (102); and

at least one fluid coupler (204) coupled in fluid communication with the cavity (210), wherein the liquid storage container (104) is configured to receive a liquid into the cavity (210) via the at least one fluid coupler (204) to form a liquid mixture with the chemical product (212), and wherein the at least one fluid coupler (204) is adapted to fluidly couple the cavity (210) to a liquid dispensing system (112) of the UAV (102) such that the liquid mixture can be dispensed from the UAV liquid dispensing system;

wherein the at least one fluid coupler (204) comprises a single fluid coupler that functions as both an inlet for receiving liquid into the liquid storage container (104) to mix with the chemical product (212) and form the liquid mixture, and an outlet for supplying the liquid mixture to the liquid dispensing system (112).

15. A liquid chemical delivery system (1200) characterized by comprising:

a backpack assembly (1205) comprising at least one shoulder strap (1207);

a frame (1202) coupled to the backpack assembly (1205);

a liquid dispensing system (1218) coupled to the backpack assembly (1205); and

a collapsible liquid storage container (1204) releasably mountable to the frame (1202),

the liquid storage container (1204) containing a pre-dosed amount of a chemical product and comprising at least one fluid coupler, the liquid storage container (1204) configured to receive a liquid via the at least one fluid coupler to form a liquid mixture with the chemical product, wherein the at least one fluid coupler is adapted to fluidly couple the liquid storage container (1204) to the liquid dispensing system (1218) for dispensing the liquid mixture therethrough;

wherein the at least one fluid coupler comprises a single fluid coupler that functions as both an inlet for receiving liquid into the liquid storage container (1204) to mix with the chemical product and form the liquid mixture, and an outlet for supplying the liquid mixture to the liquid dispensing system (1218).