CLAIMS

1. A production method for producing a particle mixture in which two or more types of particles are mixed, the production method comprising:

a step of adding a first additive to first particles and mixing the first additive with the first particles using a first mixer to obtain a first particle mixture;

a step of adding a second additive to second particles of a different type from the first particles and mixing the second additive with the second particles using a second mixer to obtain a second particle mixture; and

a step of introducing the two or more types of particles including the first particle mixture and the second particle mixture into a blender container of a gravity blender, and mixing the two or more types of particles inside the blender container,

wherein the gravity blender comprises a conveyance route that is connected to a downstream portion of the blender container and extending to an upper opening of the blender container,

wherein the step of introducing and mixing the two or more types of particles includes making the two or more types of particles circulate N times in the blender container and the conveyance route,

wherein the number N of circulation time of the two or more types of particles satisfies $1.5 \leq N < 2.5$, N is calculated by dividing a value obtained by multiplying the flow rate of the two or more types of particles that pass through the conveyance route by a circulation period by total amount of the two or more types of particles.

2. The production method according to claim 1,

wherein the first particles and the second particles are made of the same material and have different average particle diameters.

3. The production method according to claim 1 or 2,

wherein the blender container is provided with an inlet in an upper portion and an outlet in a lower portion, and

the step of mixing the two or more types of particles inside the blender container includes

a step of mixing the two or more types of particles while allowing the two or more types of particles to fall from the inlet to the outlet with the force of gravity, and then conveying the two or more types of particles from the outlet to the inlet in order to mix the two or more types of particles again while allowing the two or more particles to fall from the inlet to the outlet with the force of gravity.

4. The production method according to any one of claims 1 to 3,

wherein the first particles and the second particles are water-absorbent resin particles having different average particle diameters.

5. The production method according to any one of claims 1 to 4,

wherein the step of introducing and mixing the two or more types of particles includes

a step of introducing the first particles mixed with the first additive and the second particles mixed with the second additive into the blender container alternately and repeatedly.

6. A production apparatus configured to produce a particle mixture in which two or more types of particles are mixed, the production apparatus comprising:

a first mixer having a first container configured to accommodate first particles, the first mixer being configured to mix the first particles and a first additive together inside the first container to obtain a first particle mixture;

a second mixer having a second container configured to accommodate second particles of a different type from the first particles, the second mixer being configured to mix the second particles and a second additive together inside the second container to obtain a second particle mixture;

a gravity blender having a blender container provided with an inlet in an upper portion, the inlet being connected to the first container and the second container, and the gravity blender being configured to receive the two or more types of particles including the first particle mixture conveyed from the first container and the second particle mixture conveyed from the second container in the blender container through the inlet, and mix the two or more types of particles inside the blender container; and

one or more controller,

wherein the gravity blender further comprises a conveyance route that is connected to a downstream portion of the blender container and extending to the inlet,

wherein the one or more controller is configured to drive the conveyance route to make the two or more types of particles received by the blender container circulate N times in the blender container and the conveyance route,

wherein the number N of circulation time of the two or more types of particles satisfies $1.5 \leq N < 2.5$, N is calculated by dividing a value obtained by multiplying the flow rate of the two or more types of particles that pass through the conveyance route by a circulation period by total amount of the two or more types of particles.