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Coating Rice Hulls in a Star Roller



Figure 1: Roller filled with rice hulls.



Figure 2: Hulls coated with a 6:1 ratio.

The commonly described method of coating rice hulls with a burst charge, which involves pre-soaking the hulls with water prior to tumbling them in a pan while adding powder, is not well suited to producing high charge-to-hull ratios and often results in clumping, excessive dust and longer dry times. Draining the water from the hulls can present a problem, as failing to drain enough water from the hulls will result in overly damp hulls that easily clump together when the powder is added.

The quickest and most effective way to coat rice hulls involves a tool you may already have: a star roller! Since star rollers are designed specifically for applying powder to a mass of tumbling cores, it is ideally suited for coating rice hulls. There is no limit to the amount of powder you can pack on to the hulls in this manner, and since the hulls are not soaked to the core with water, the finished hulls will dry faster. The fact that the water and powder are alternated in layers helps keep the coating smooth with little or no crumbly dust in the finished product.

Start by weighing out an amount of hulls that almost fill the capacity of your star roller, as shown in Figure 1. The amount of powder required to give the hulls the proper ratio is also weighed out and kept in a bucket nearby. Start the machine rolling and spray the hulls with water until they reach a point where they start clumping together. Use your free hand to stir the mass of hulls, bringing the inside hulls to the top while spraying.

Once the hulls are starting to clump together, just start dumping powder on them. It is much easier coating hulls than rolling stars, since they are not as fragile and it doesn't matter if a few of them stick together. When powder gets stuck to the sides of the roller, just use a handful of hulls to clean the sides. It helps to churn the pile of hulls with your free hand frequently, breaking up clumps when they do occur.

Simply alternate spraying the hulls till they clump and adding powder till they flow nicely. When you are getting near the end of your powder supply, stop the spraying and apply an overdose of powder. Walk away from the machine and let the excess powder slowly pick up as it wicks the moisture out of the damp hulls. This trick reduces the dry time as well as the chances of the hulls being overly damp when you run out of powder.

Once dry, your hulls should look clean and separated like Figure 2. Hulls dried in a <u>dry-box</u> may be ready for use the same day they were rolled!

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