MODIFYING BLENDER BLADES FOR SEED CLEANING

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ABSTRACT

Kitchen blenders are often used to separate fruits and seeds. Coating sharp impeller blades with rubberized plastic coating, the same material used to coat tool handles, is a long-lasting, effective, and neat way to prevent damage to seeds.

KEY WORDS
seed processing, Rosaceae, Caprifoliaceae, Ericaceae, Cupressaceae

NOMENCLATURE
USDA NRCS (2002)

The common kitchen blender is an often-used device for seed processing. Combining moist, fleshy fruits, some water, and the whirring blades is an effective first step in separating the pulp and seeds, particularly for small amounts of material. The sharp impeller blades, however, can damage seeds. To avoid damage, blades are generally wrapped with duct tape or black electrical tape (Scianna 2001). Tape works well at preventing damage, but it quickly (after 10 or 12 uses) becomes messy and annoying as it unravels and disintegrates. At the native plant nursery at Salish Kootenai College, I found that painting the impeller blades with rubberized plastic coating (Rubberize-It! Homax Products Inc, PO Box 5643, Bellingham, Washington 98227; telephone 800.729.9029; http://www.homaxproducts.com/catalog/rubberizeit.html), the same material used to coat handles of tools, is a more effective way of coating the blades to prevent seed damage.

At a local hardware store a 429-ml (14.5-fl oz) container costs about US$ 8 and has enough material to do dozens of blenders as well as a few hand tools. I put 3 thick coats of material over the blades and the shaft down to where metal meets plastic, allowing each coat to dry thoroughly before applying the next coat. Although I have only used the modified blender 1 y, the coating has lasted through dozens of cleaning operations. Occasionally during the course of blending, a small nick forms in the coating, to which I simply dab on some additional coating.

Generally, I blend about 1 part fruits in 2 parts water, keeping the volume about one-third that of the total blender. I have found that small volumes tend to process cleaner in less time. Blend for about 2 min. Check the seeds for damage and cleanliness. If seeds are not totally clean, blend for an additional 2 min. Sometimes I pour the slurry into a strainer and run it under water for a minute, then return the seeds to the blender and blend for another minute. Seeds should be clean of all fleshy fruit.

Blending works very well for species in the Rosaceae (for example, *Prunus virginiana* L., *Amelanchier* spp. Medik., *Rosa* spp. L., and *Crataegus* L.), Caprifoliaceae (for example, *Symphoricarpos* spp. Duham. and *Sambucus* spp. L.), Ericaceae (for example, *Vaccinium* spp. L.), and Cupressaceae (for example, *Juniperus scopulorum* Sarg.).

I have also used the blender to clean grasses (Poaceae) and rushes (Juncaceae). I start by removing the seed heads and placing them into the blender dry, beating them for 2 s, pausing for a moment, and then beating an additional 2 s. The seeds and debris can then be screened to separate out seeds.

REFERENCES

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