Effect of Coating Polymer and Materials on the Germination. (C04-kang034955-Poster)

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Abstract:

Seed coating is a mechanism for applying needed materials in such a way that they affect the seed or soil at the seed-soil interface. Thus, seed coating provides an opportunity for packing the effective quantities of materials such that they can influence the microenvironment of each seed. The objective of this study was to determine the optimum of polymer and particulate matters for seed coating in perilla. There were significant differences of percent germination and germination speed in accordance with the coating polymer and the concentration. Among the coating polymer, germination of seeds using polyvinyl alcohol was generally smooth, and followed by polyvinyl pyrrolidone, hydroxyethyl cellulose, and methyl cellulose. Germination rate was also different according to the coating particulate matters. Generally, percentage germination and germination speed of seeds using the mixture of diatomaceous earth, talc and bentonite were higher and faster than using other coating materials, respectively. However, percentage germination using limestone was low, and percent germination of coated seeds with coating material showed the tendency of decreasing more than that of the seeds just added with coating particulate matters.

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