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# Field Evaluation of Two Methods for Assessment of Nodulation and N-Fixation by Peas

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## Abstract

A field experiment being conducted at Swift Current to evaluate the effectiveness of a commercial polymer-coating system in comparison with traditional pulse inoculation systems provided an opportunity to test side-by-side the utility of two differing methods for on-site assessment of nodule development and N-fixation potential. The first is the nodulation scoring method developed by Rice and Clayton at Beaverlodge, AB for peas that has also been used in recent years by other AAFC researchers in Alberta and Saskatchewan for in-field rating of not only peas but lentils and chickling vetch when grown as pulses or green manures. The other method is an adaptation from the BC Ministry of Forests Field Guide to assess forage legumes which was later modified by Grow Tec Seed Coatings Inc. for use in research trials with large-seeded grain legumes. The results of our comparative study indicate that addition of above ground plant growth and vigour assessment to the excavation and assessment of root nodule colour, number and position has rendered the Grow Tec / BC Ministry method much more precise than the Rice/Clayton method as it relates more closely to vegetative biomass production and also to final grain yields.