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ONLINE ISSN : 1883-2261

PRINT ISSN : 0389-1763

## Japanese Journal of Farm Work Research

Vol. 42 (2007) , No. 3 pp.173-178

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### Development of Pulling Sprayer for Herbicides

[Ryuichi SAGO](#)<sup>1)</sup>

1) Field Science Center, College of Agriculture, Ibaraki University

(Received December 15, 2006)

(Accepted August 4, 2007)

#### Abstract

Herbicides, bush cutters and other tools are used for weed management in orchards and border areas on arable land. However, weed management involves heavy labor and thus it is necessary to develop a labor-saving sprayer for the efficient use of herbicides. So, a pulling herbicide sprayer was developed based on the wheel pump sprayer.

This sprayer has no engine, but operates the pump by rotation of a wheel. A nozzle has been built in a form spray nozzle for low volume (25L per 10a) and for coarser spray. The application rate of herbicides is linked with the application speed, so if operator walks at a speed of 2Kmp per hour, the sprayer will work at a volume of 25L per 10a exactly. A built-in pressure relief valve prevents the sprayer from developing excessive pressure. Herbicides do not drift towards the operator since the operator moves ahead of the sprayer in the direction of the application.

This sprayer has a highly prospective value as a new model, low-volume herbicide sprayer.

#### Key words

[pulling herbicide sprayer](#), [low volume sprayer](#), [weed management](#)

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To cite this article:

Ryuichi SAGO (2007): Development of Pulling Sprayer for Herbicides . Japanese Journal of Farm Work Research 42: 3 173-178 .

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doi:10.4035/jsfwr.42.173

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