

ARM software for weed research management

Steven R. Gylling

405 Martin Boulevard, Brookings, SD 57006, United States of America

(steve@gdmdata.com)

Summary ARM is commercial software specifically designed to manage crop protection and crop production efficacy experiments, including weed research. Available tools to plan, randomize, establish, manage, analyse, graph, and report information for field and greenhouse experiments will be briefly reviewed. The software provides a structured way to enter treatments, assessments, site and application information, tasks, and attachments. The software can also automatically randomize and statistically analyse results for the 11 single and multi-factor experimental designs, review randomization quality, calculate product amounts to achieve desired application rates, find statistical outliers, perform data quality checks, identify potential site (non-treatment) effects, automatically detect and correct common violations of AOV assumptions. Reports are also included for data collection and

verification, labels, plot signs, spray/seeding plans, site information, maps, field tours, and several assessment data reports that include statistical analysis. All reports can be printed to Word, Excel, and Adobe .pdf files. An integrated trial and protocol overview database automatically indexes information to conveniently search current and historical trials based on more than 75 different types of information. Similar trials can be readily combined across locations and years using an optional multi-trial summary analysis module. The software has been available for more than 30 years, includes several language translations, and is currently used by more than 6000 clients in approximately 80 countries.

Keywords Software, research data management.