

TSM 330: Lab2

Farm Machinery Report – The Iowa Power Farming Show

Instructions: The report may be on any topic or piece of machinery seen at the Power Farming Show, or any other source. You may report on a complete system or an individual component of the system. The report and presentations must address the following topics:

- 1) Your rationale for selecting this particular machinery/topic and the importance of this “machine/component/product/topic” in the broader system it is operating.
- 2) The fundamental objective of this component; the operating principles of the machine/component; and the basic physical/mathematical principles that control its operation.
- 3) A brief independent analysis on whether the claims made for this product are consistent with any scientific papers/standards or mathematical analysis reported (I expect a reasonable effort to be made to find possible scientific information.) Much greater weight will be given to scientific reports and standards for comparison, than arbitrary web sources and commercial marketing sources. (i.e. One company saying their product is better because x, y and z, is not a good independent analysis.
- 4) Recommendations and summary.

Comment: This must be written and presented in a formal manner. The report should be well organized, avoid slang and unprofessional vocabulary. The sentence structure, grammar and tone should not be that used in normal conversation with close friends or colleagues. There is no single “best” report format. A number of different formats are more than acceptable provided they are well implemented. Logical organization, clarity and the flow of the report/presentation is far more important than fancy colored graphics and presentation animations.

Instructions in preparing your report:

1. The report should be more than 2 pages (including an executive summary page) and ideally less than 5 pages, excluding an appendix with any supporting material such as brochures and other materials you wish to include.
2. You need to demonstrate in your report that you have made an independent evaluation of the “product” and used ISU library facilities/reference materials/reputable web material for analysis. You must show that you have made a reasonable attempt understand the “State of the Art” relevant to the component/product/topic you are reporting on.
3. Write the report as if you were reporting to an employer. Be brief, objective, lucid and to the point. Layout the report in the following form:
 - 1) Title (be sure to include full name and address of manufacturer)
 - 2) One page executive summary
 - 4) The body of report including Rational, Analysis, Conclusion or recommendations and References
(outlines the product; manufacturer or process being discussed or recommended; provides additional detail; including Functional Analysis and/or Economic aspects; Implications; give some figures wherever possible)

Do not forget to put your name on top RHS of front page and staple report together.