

# Spreadsheets 101

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# Goals for Today

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- What is a spreadsheet?
- Popular uses of spreadsheets
- Using pre-built spreadsheet templates
  - Cow calendar
  - Enterprise budgets                      Bees and Beans
  - Cash flow budget                         Household and Operation
  - Financial ratio analysis
- Example of 2 people using Google Sheets

# What is a Spreadsheet?

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- A magical electronic Etch-A-Sketch®
- Flexible, creative, customizable analysis tool
- Organize your records, to-do list, & your life
- Does the math for you!
- Sensitivity analysis
- And a whole lot more!



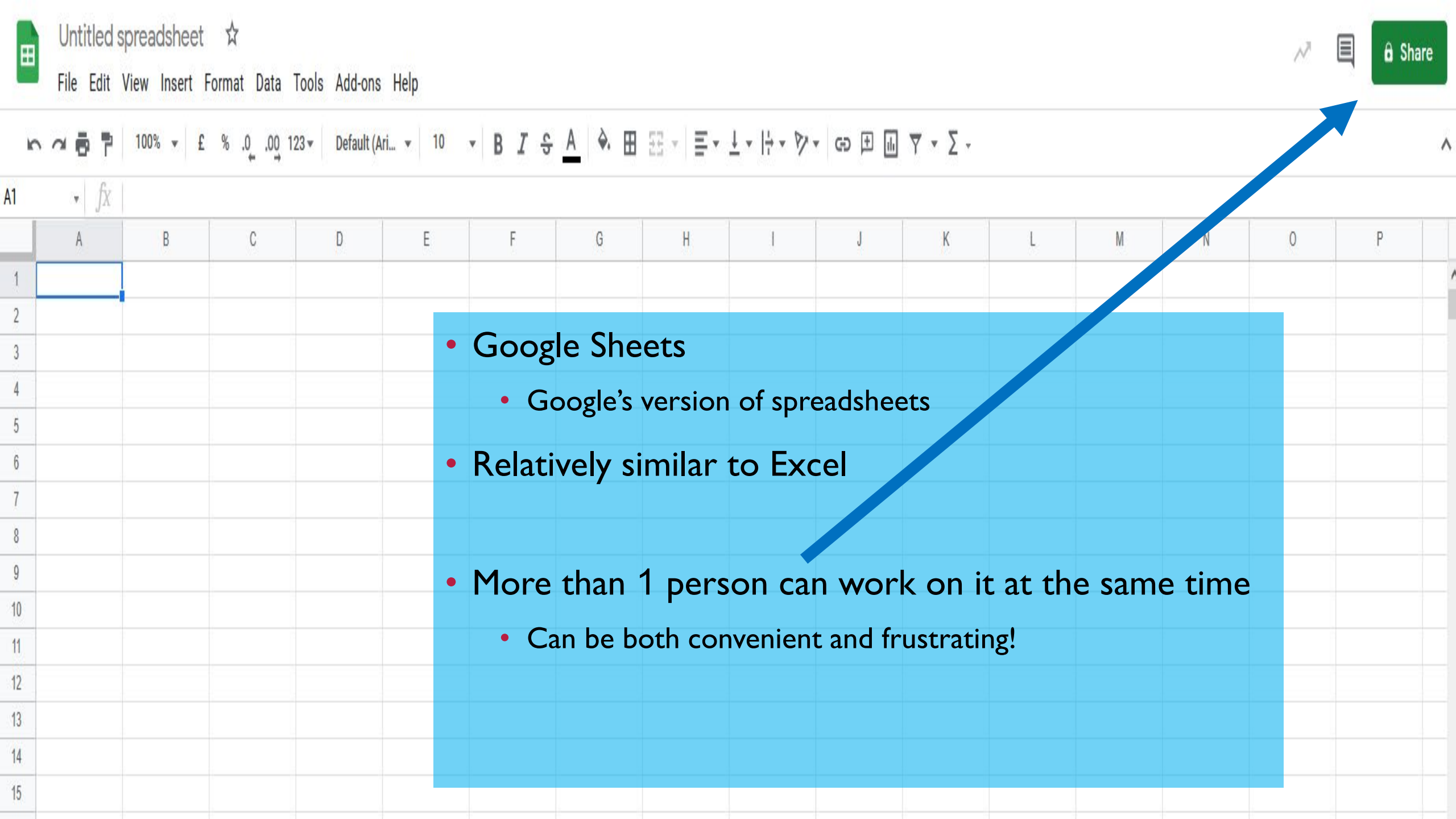


A1

A B C D E F G H I J K L

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

- Menu-driven
- Based on “cells”
  - Referenced by column letter and row number
  - Cell “A1” is highlighted
- Cells can hold words, numbers, formulas, etc.
- Built-in formulas & functions make life easier
- If you don’t like something, change it!!



- **Google Sheets**
  - Google's version of spreadsheets
- **Relatively similar to Excel**
- **More than 1 person can work on it at the same time**
  - Can be both convenient and frustrating!

# Uses of Spreadsheets

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- How much time do you have? The list is endless!
- Financial statements & analysis
  - Balance sheet, income statement, cash flow budget, inventories
  - Ratios, benchmarking, breakevens, **sensitivity analysis**
- Production records
  - Herd records – breeding, health, ADG, pedigree, Feed Cost/Lb Gain, etc.
  - Crop records – nutrient management, yields, pest control, etc.
  - Event records – number of customers, input needs, etc.

# Uses of Spreadsheets

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- Mailing lists, customer files, databases
  - **Sort** by product, region, sales, age, etc.
- Calendars – **organize** event scheduling, breeding calendar
- Data analysis – averages, “top 5”, trends, graphs, statistics
- To-do lists – **prioritize** items, check them off when completed
- Household budgets – family living needs
- Loan calculators, time value of money (Future Value...)
- Get the idea?!

# Uses of Google Sheets

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- Same as Excel
- Group projects with others
  - Each person can make edits to the same sheet at the same time
- Entering data for 4-H & FFA contests
  - Several people entering data in the same sheet at the same time
- Entering herd information
  - Someone in the field
  - Someone in the office



# Production Calculations – Cow Calendar

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- Estimates projected significant dates for a dairy cow
- Change the information to meet your needs (blue highlighted cells)
  - Use your records to get more accurate results
- The formulas do the work for you!
- Helpful in developing your production schedule throughout the year
- Shows the impact of reproductive efficiency

# Bee Enterprise Budget

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- NOTE – I made up the numbers. Please don't use them as estimates.
- Again – change the items in **blue font**
  - Change Honey price to \$15/lb to see impact on Earnings Before Taxes
  - Change “Fudge Factor” to 20%
- Automatically highlights 5 largest expenses (red highlighted cells)
  - Conditional formatting
- Breakeven analysis at the bottom of the budget

# VCE Soybean Budget

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- VCE Soybean Enterprise Budget
- You can edit anything in **blue font**
  - Tailor it to your operation
  - Use your records!! (Remember that enterprise accounting?)
- Anything in black font – don't change or delete
- Look at all that production info
  - From your records!

# Hang onto Your Seats!!

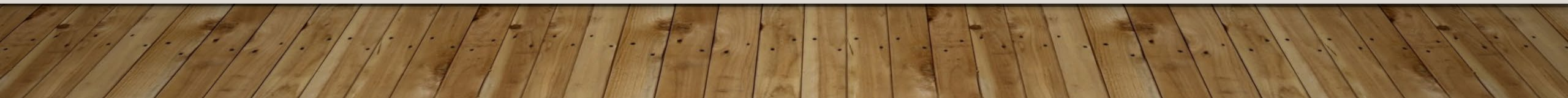
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- What is the maximum we can afford to pay for Potash?
  - Assuming that's the only change
  - Projected Net Returns = \$0 (cell G63)
- Method 1 – trial and error
  - Change the price of potash until cell G63 = \$0 (boring!!)
- Method 2 – Develop a formula
  - Blah, blah, blah, Math, blah, blah....
- Method 3 – “Goal Seek”
  - Breakeven analysis without knowing any formulas!!

# Goal Seek

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- Click on the Data menu
- Click on “What-If Analysis”
- Click on “Goal Seek:
- A box asks for:
  - Set cell                      Your profit cell in this case                      G63
  - Equal to                      Value you want your profits to be                      0
  - By changing cell                      The factor you are solving for                      F20
  - Press OK



## Goal Seek Results

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- Notice that the potash price changed to \$0.64/lb (cell F20)
- Look at the Projected Return \$0 (cell G63)
  
- **MAGIC!!!**
  
- If potash prices increase to \$0.64/lb, you will just breakeven
  - Holding everything else constant

# Household Budget & Cash Flow Budget

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- You get the idea
- Take these budgets to your lender – Hoo Boy!!
- **Save them and just make revisions next time around!**
- Quarterly cash flow
  - When would you schedule new loan payments?
  - Will you need an operating line? If so, how much? When can you pay it back?
  - When might you have money for a capital purchase or down payment?
  - What can you do with that ending cash balance?
  - Use this statement to project next year's balance sheet!

# Financial Ratios & Benchmarking

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- Wanna take control of your financial situation?
- Wanna impress your lender?
- Use your record system to calculate the main financial ratios
  - Balance sheet
  - Income statement (accrual-adjusted)
  - Cash flow
- Green, Yellow, Red light rating system



# Google Sheets

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- Checking those pesky year-end inventories
  - One person in the field – looking at inventories, counting cows
  - One person in the office – looking up prices
- Google Sheet to record the inventories & calculate changes
- Need to “Share” the file with both people
- Both can make changes at the same time!

# What If the Template Doesn't Do What I Want?

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- Build your own!!
- Treat a blank spreadsheet as your Etch-A-Sketch
  - Try building something
  - If you don't like it
    - Change it
    - Delete it and start over
  - Copy & Paste can be a real time saver!
- Stay tuned for a session on building your own spreadsheets