

## User manual of NM-Manure Model

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### 1. Prepare Excel security settings.

- Open Microsoft Office Excel (a blank new file)
- Go to Tools, Macro, Security...
- In the “Security Level” tab, select “Medium” and press OK.
- Close Excel program

### 2. Download application (NM-Manure.xls [511 Kb]) from <http://dairy.nmsu.edu>, Tools.

- Right click on [NM-Manure](#) and select “Save Target As...”
- Save file in known place in your local machine

### 3. Open NM-Manure application

- Find the NM-Manure.xls file saved in step 2 and open it.
- A Security Warning will appear requesting to “Enable Macros”
- When you hit “Enable Macros” the following screen will appear

"NM-Manure"		Predicts seasonal manure excretion of lactating cows in New Mexico						
		For more information refer to the document 						
<b>Enter your data and hit the "Run Model" button.</b>								
<b>Total Adult Cows</b>		<b>(heads)</b>	<b>2,220</b>		<b>Run Model</b>			
<b>Milk productivity or RHA</b>		<b>(lbs/cow/year)</b>	<b>22,200</b>					
	<b>Cows (head)</b>	<b>Heifers (head)</b>	<b>Pregnant (head)</b>	<b>Milking (head)</b>	<b>Calving (head)</b>	<b>Total Milk (lbs)</b>	<b>RHA (lbs/cow/year)</b>	<b>Manure (lbs)</b>
<b>JANUARY</b>	2,257	1,676	1,714	1,917	120	3,969,023	22,172	7,229,232
<b>FEBRUARY</b>	2,235	1,711	1,742	1,945	109	3,740,869	22,157	6,658,516
<b>MARCH</b>	2,211	1,735	1,823	1,990	98	4,306,402	22,179	7,576,648
<b>APRIL</b>	2,191	1,741	1,907	2,028	86	4,233,123	22,179	7,488,149
<b>MAY</b>	2,180	1,731	1,999	2,042	69	4,470,493	22,153	7,850,191
<b>JUNE</b>	2,182	1,709	2,075	2,041	64	4,298,254	22,172	7,616,929
<b>JULY</b>	2,197	1,681	2,115	2,037	68	4,385,491	22,172	7,862,619
<b>AUGUST</b>	2,226	1,650	2,092	2,021	77	4,263,429	22,178	7,776,328
<b>SEPTEMBER</b>	2,256	1,624	2,038	1,974	85	3,960,663	22,162	7,321,469
<b>OCTOBER</b>	2,277	1,610	1,957	1,917	99	3,976,298	22,162	7,327,768
<b>NOVEMBER</b>	2,283	1,615	1,859	1,888	116	3,722,352	22,187	6,925,118
<b>DECEMBER</b>	2,278	1,641	1,759	1,899	127	3,897,191	22,173	7,171,643

#### 4. Explore the file:

- There is an icon to open a pdf file with documentation about the model
- Before running the model, two pieces of information should be entered in the yellow cells: the total number of adult cows and the milk productivity of the dairy farm to be simulated
- The model will run by hitting the blue button and will display results in the table and figures underneath

#### 5. Explore your results:

- The table has eight columns with self explanatory headings. The last heading, Manure (lbs), shows the prediction of wet manure excreted in a monthly basis.
- The six figures represent visually most of the data in the table
- There is a button below the figures that allows print all the results in one letter page