

## THE FATIGUE CALCULATOR

In the last post, you explored creating an incident report that included fatigue as part of the investigation process. You may have answered the questions in the post and discovered this is the way you have been working on the farm for years: sleepless nights during calving season, long hours putting in silage and hay, working two jobs – the day job and the farm, getting up early to collect or move chickens, and early and late hours to milk and feed cows, to name a just a few laborious and onerous tasks.

I now may have you curious as to the impact this may actually have on you, your family, and the farm. The fatigue calculator may help you measure the impact fatigue may have on your farm and prompt some changes; even if the changes are small, they can make a big difference.

To make light work of using the Fatigue Calculator follow my instructions below.

1. Print the Fatigue Calculator and then enter the data as you follow along.
2. In Step 1 of the Fatigue Calculator, write down the number of hours you have slept in the last 24 and 48 as well as the number of hours since your last sleep. If you can't remember at this point, this is a serious flag!
3. Step 2 gets a little bit more complicated but stay with me, the result is worth it.
  - a. Step 2: Question 1- Take the number of hours you noted for (X) and multiply each hour by 4 for every hour less than 5 hours.
    - i. For example, if you slept only 4 hours, then you slept 1 hour less than 5. Score 4 points and write it in the space provided.
      1. Enter (0) if (X) was more than 5 hours.
  - b. Step 2: Question 2 - Take the number of hours you noted in for (Y) and multiply each hour by 2 for every hour less than 12 hours.
    - i. For example, if you slept only 8 hours, then you slept 4 hours less than 12. Score 8 points and write it in the space provided.
      1. Enter (0) if (X) was more than 12 hours.
  - c. Step 2: Question 3 – First, for every hour where (Z) is more than (Y), multiply the difference by 1 and enter the result in the space provided.
    1. Enter (0) if (Z) is more than (Y).
  - d. Step 2: Question 4 - Add up the answers to Step 2: Questions 1 to 3 and enter the total in the space provided. This is the number you will use in the Score Interpretation Chart to determine next steps for Fatigue at Risk Management (FARM).

What is your score? Are you fatigued? Should you make some changes? Change may take time, but the higher the score the more seriously you may want to think about how to affect the change. Every Farm and their available resources will dictate how to affect the change.

If you didn't affect change, what are the risks based on the activities on your farm? What are the consequences, if a change isn't made? Does the risk outweigh the benefit or does the benefit outweigh the risk?

## FATIGUE CALCULATOR

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

### STEP #1: Calculate worker's recent sleep history

1. X (number of hours slept in the last 24 hours): \_\_\_\_\_
2. Y (number of hours slept in the last 48 hours): \_\_\_\_\_
3. Z (number of hours since the last sleep): \_\_\_\_\_

### STEP #2: Calculate the fatigue likelihood score

1. For every hour that X is less than 5, add 4 points: \_\_\_\_\_
2. For every hour that Y is less than 12, add 2 points: \_\_\_\_\_
3. For every hour that Z exceeds Y, add 1 point: \_\_\_\_\_
4. Add X, Y, and Z together in Step #2 to get total score: \_\_\_\_\_

Refer to the table below to interpret what the score may mean and to find a recommendation.

### SCORE INTERPRETATION:

Score	Interpretation	Recommendation
0	May show no signs of fatigue.	Fit to continue work as per normal schedule.
1 - 2	Slower thinking, may show signs of fatigue, and mood changes.	Maintain alertness: drink coffee, take a break, go for a walk.
3 - 4	May have poor concentration while doing complex tasks.	Do not perform tasks that require prolonged concentration and do not start long drive.
5 - 6	Poor concentration for extended periods, poor judgement, and lapse of attention.	Reduce fatigue risk immediately.
7 - 8	Poor attention, poor performance, and poor concentration on simple tasks.	Reduce fatigue risk immediately, do not drive or work alone, no critical decision-making activities.
9 - 10	Serious lack of energy and motivation, and no situational awareness.	Mitigate fatigue risk, do not drive or work alone, and no critical decision-making activities
11 & up	Trouble staying awake, and unable to focus on any task.	Stop work and get sleep.

### EXAMPLE CALCULATION:

#### STEP #1: Calculate worker's recent sleep history

X (number of hours slept in the last 24 hours): 6

Y (number of hours slept in the last 48 hours): 13

Z (number of hours since the last sleep): 16

#### STEP #2: Calculate the fatigue likelihood score

For every hour that X is less than 5, add 4 points: 0

For every hour that Y is less than 12, add 2 points: 0

For every hour that Z exceeds Y, add 1 point: 3

Add X, Y, and Z together in Step #2 to get total score: 3

Meaning: Poor concentration while doing complex tasks.

Recommend: Not perform tasks requiring prolonged concentration and not to start a long drive.

Reference: "Managing Fatigue in the Workplace." <http://www.ipieca.org/resources/good-practice/managing-fatigue-in-the-workplace/>

DISCLAIMER: This policy sheet example is provided by Farm Safety Nova Scotia as a general overview for information purposes only. Farmers are responsible for modifying the example to suit each individual farm.

Refer to section 5:1 of Farm Safety Nova Scotia's "A Guide to Your Farm Safety Plan".

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