

# Post

M2M General



## Smart farms, smart answer to population growth

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The world consumes nearly 3 trillion pounds of meat, fish, fruits and vegetables combined each year, according to figures by various organisms like FAO and IFPRI. In 2030, this number will increase to 4 trillion pounds. Ever-increasing growth of the population implies higher consumption. Technology might be the answer to meet the future demand of food.

Historically, agriculture and farming are sectors that happily embrace every technological advance that enhances production and reduce costs, something M2M is very good for. Machine to machine technology is a tool of proven effectiveness when applied to food production.

### Information and automation

When it comes to agriculture, farmers face a series of challenges that hinder the production of food. From the lack of manpower, to inefficient technology, to the lack of information on weather, fertilizers, and humidity conditions. These problems are easily resolved with the implementation of M2M technology; transforming a farm into a smart farm.

Probably, the solution that most directly involves food production is crop and greenhouse monitoring solutions. This technology consists in a wide range of connected sensors that measure different data such as wind speed, temperature, pressure, humidity, etcetera, and present the information to the farmer in a way that is understandable and allows him to make important decisions based on this data.

Crop solutions, such as the one presented by Telefónica's ally Telit, allow farmers to maintain crop temperatures by remotely covering or uncovering their crops and clear vinyl greenhouses at night or during cold weather. Before this kind of solutions, farmers would have to cover the crops manually, leading to a big output of labor and time.

Machine to machine can also be used to control automatic irrigation based on the conditions of the soil. This managed connectivity solutions alert the farmer when an irrigation pivot is malfunctioning, saving enormous amounts of power and all time spent checking the pivots periodically, hence improving profitability.



A great example is the PEAR program, in which growers in California's Central Valley participate:

[PEAR by M2M - Program Overview](#) from [M2M Communications](#) on [Vimeo](#).

M2M is ideal also to monitor other data of the soil, such as ammonia, fertilizer and pesticide levels.

But farmers can also benefit from **solutions** of proven efficiency in other industries, like specialized [fleet management](#) solutions that allow tracking of the vehicles used in planting and harvesting, allowing also monitorization of fuel consumption and providing real time data of the location of every truck, tractor and machine in the farmer's fleet.

Agriculture is a great reflection on how M2M acts as an enabler in any field it is applied. Again, controlled automation is key.



VIDEO

<https://m2m.telefonica.com/m2m-media/m2m-blog/item/320-smart-farms-smart-answer-to-population-growth>



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