GROWING POTATOES IN INNER MONGOLIA

Part 1

Compare the Difference with an RLF Crop Nutrition Program

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The annual production area for potatoes in Wulanchabu in Inner Mongolia is approximately 4-million mu.

Due to the extremes of temperature between day and night, and particularly the hot rainy season when the rainfall is concentrated in the potato growing season, the soil is sandy. This provides advantageous conditions for potato growth and development. As a result, Wulanchabu is called 'the potato capital of China'.

In early September 2019, the RLF Technical Team visited the local potato growers in Siziwangqi, Wulanchabu.

Inspecting the potato field with growers

Documented Potato Evaluation Trial

Location	Agui Village, Siziwangqi, Wulanchabu	
Farmer	Qiao Xiuwen	
Area	20 mu	
Variety	Potato 226	
Program	**Growth Stage**	**RLF Crop Nutrition Product Used**
	Seeding	**Foliar spray** with **Broadacre Plus** x 3 applications **Furrow inject** with **Plant Milk High-N** x 1 application
	Tuber	**Furrow inject** with **Plant Milk High-K** x 2 applications

Potatoes were dug from a 1.4*2m area and checked for size and quality

Potato grower Qiao Xiuwen with his produce

The gross weight of potatoes (34.7Jin) less the box weight (1.5Jin) gave a net weight of 33.2Jin.

What was discovered following this evaluation was that the potatoes treated with an RLF nutrition program were uniform in size, shallow in bud, regular in shape and commercially very good quality.

The Statistical Results

- According to the 1.4*2m sample plot statistics, there were 53 potatoes with 47 being big potatoes (weight over 300g). The total potato weight was 33.2 Jin, including 32.52 Jin of big potatoes. On this basis it was estimated that 9,250 Jin would be produced per mu.
- Using the purchase price of about 0.53 yuan/Jin, the income would be about 4900 yuan/mu.
- Inputs accounted for only about 620 yuan/mu – including the cost of planting potatoes, fertiliser and facilities, but the output was 4900 yuan/ mu!

So, an excellent result for the grower - really small input, with an economically significant output.

The RLF Technical Team in the potato field

With the development of the potato as a staple food or 'main grain', the planting scale is also expanding.

To improve potato quality and yield, the principle of 'applying enough base fertiliser and timely topdressing' should be embraced and mastered by growers.

How to Apply a Scientifically-based Crop Nutrition Program for Potato

- The key to growing high-yielding and high-quality potato crops is reliant upon a scientifically-based method of fertiliser use. The principle of applying enough base fertiliser with timely dressing of specialty foliar fertilisers to provide all the needed elements for the different stages of the crop is essential.

- The main function of the base fertiliser is to supply the nutrients needed for the whole growth period of the crop. It should be based on organic fertiliser and be supplemented by chemical fertiliser. Organic fertiliser can improve soil permeability, increase plant disease resistance, reduce the probability of potato disease infection and have a great effect on improving the appearance of fresh potatoes.

- In respect to topdressing – according to the growth characteristics of potato – nitrogen fertiliser should be used at the early stage to promote the rapid growth of the plant. In the formation of the tuber stage, phosphorus and potassium fertiliser should be added to increase the content of dry matter and starch in the tuber and to improve its quality and shape.

- In general, this combination of base fertiliser with topdressing nutrition ensures that the large, medium and trace elements are all made available to the crop for all its different stages, needs and parts of the plant – both in the root zone and for the leaf.