

*Producción Orgánica del Arándano
en California*

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University of California
Cooperative Extension

Resumen

- *Arándano en California y en otras partes*
- *Mercado del arándano y de los orgánicos*
- *Requisitos de producción orgánica - EEUU*
- *Manejo orgánico del arándano en California*



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Resumen – producción del arándano en California

- *Principalmente de variedades So. Highbush
- poco rabbiteye, muy poco N. Highbush*
- *Más que 3500 ha sembradas*
- *3000 ha en Valle Central, resto en la costa
Valle Central produce en Mayo / Junio
Costa en Febrero a Junio – Octubre - Febrero?*
- *~ 200 ha de arándano orgánico? – afecta el precio*
- *Nuevas áreas para cosecha mecánica – Junio-Agosto*

Mercado del Arándano – EEUU y UE

- *Demanda sigue incrementando mundialmente
- también producción; logística a veces dicta*
- *Pocas zonas en la costa de donde sale fruta en otoño*
- *Cuando haya volúmenes grandes en CA, Chile esta terminando – precio premio
- entran rápidamente de Florida, Georgia*
- *Mercado UE – producción incrementa en España, Maruecos, y el sur
- 30-50 horas a UK en camiones refrigerados*

Mercado orgánico – EEUU y UE

- *Demanda sigue incrementando*
- *Producción también incrementa mas rápidamente*
 - *logística dicta a veces*
- *Arándano orgánico en California va bien en Oct-Mayo*
 - *poca volumen*
 - *25 ha del Valle Central mata el precio in Mayo*
 - *mas GA, TX y nuevas siembras en todos partes*
- *Europa – demanda para productos orgánicos incrementa quizás mas rápidamente que otras zonas;*
 - convenio entre cadenas de Supermercados*
 - *Inglaterra es excepción – mas serio el crisis económico*

Énfasis en producción orgánica?

- *Precios y estabilidad del mercado*
- *Costos y riesgos – incertidumbre?*
- *Filosofía o negocio?*
- *Factores claves*
 - *nutrición*
 - *plagas y enfermedades*
 - *mano de obra – control de malezas*



Empresas tradicionales de berries – iniciando proyectos de producción orgánica

- *No es siempre al beneficio de otros productores*
- *Casas comerciales desean tener mas volumen y abrir otros mercados*
- *Incremento en demanda para el arándano en general*
- *También precios y consumo de productos orgánicos han nivelado o suben mas lentamente con condiciones económicas*
 - *en general hay mas consumo pero mas producción*

• • Insecticides for Organic Brambles & Blueberry
Class: Nicotinic = acetylcholine receptor agonists –
Entrust • Suppress caterpillars, CRFW, CFR & thrips
Surround - no resistance development expected –
Kaolin clay white film makes plants less apparent &
reduces feeding • Chafer, JB, leafrollers, psyllid & thrips

Class: Azadirachtin = ecdysone agonists = disrupts molting – Aza-Direct (IGR, repellent, antifeedant) • Aphids, caterpillars, cutworms, JB, mites, psyllids, scale, stink bugs, weevils & thrips – Neemix (similar to Aza-Direct) • Aphids, caterpillars, CFW, cutworms & leafrollers
Class: Pyrethrin = sodium channel modulators – PyGanic (pyrethrin + rotenone) • Aphids, beetles, caterpillars, E. tent caterpillar, JB, psyllids, rednecked cane borer (RNCB), scale, stink bugs, tarnished plant bug & thrips – Pyrellin (pyrethrin) • Aphids, chafers, JB, mites, RNCB & thrips

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What is organic?

Organic production is a system that is managed in accordance with the Organic Foods Production Act (OFPA) of 1990 (PDF) and regulations in Title 7, Part 205 of the Code of Federal Regulations to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. The National Organic Program (NOP) develops, implements, and administers national production, handling, and labeling standards.



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(April 23, 2010) OMRI has previously announced that three composts had been prohibited by

Ambiente general para la producción orgánica?

- *Condiciones generales en la costa son favorables casi todo el año*
- *Condiciones en el Valle Central son secas y favorables durante la cosecha – temperatura aumenta en verano*
- *Botrytis de la flor y fruta durante invierno*
- *Enfermedades de las raíces se controlan con practicas culturales*
- *Malezas requiere de mucho mano de obra*

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Énfasis en producción orgánica?

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The gap narrows, but blueberries still chasing strawberries
When it comes to surging blueberries versus long time leader strawberries, the object in the rear view mirror is farther away than it appears. The British newspaper Telegraph excitedly published a story this morning that implies that strawberries have been flat out passed by the blueberry. Here is the story. *Blueberries outsell strawberries* The most quintessentially of English summer fruits has been knocked off its perch by an American interloper. Blueberries are outselling strawberries. For the first time ever, shoppers have spent more money on blueberries than on strawberries. So far this year the total spend on blueberries has outstripped the spend on strawberries by 20 per cent at Waitrose, with "hundreds of thousands of pounds" more spent on the small dark blue fruit than on the soft red fruit. Twenty years ago blueberries were considered an exotic import, usually shipped in from the US or South America, and as rare on a supermarket shelf as a guava or Sharon fruit. Thanks to a concerted effort to grow them in Britain and a variety of nutritionists trumpeting their health benefits

Empresas tradicionales de berries – iniciando proyectos de produccion organica

Blueberry demand + organic

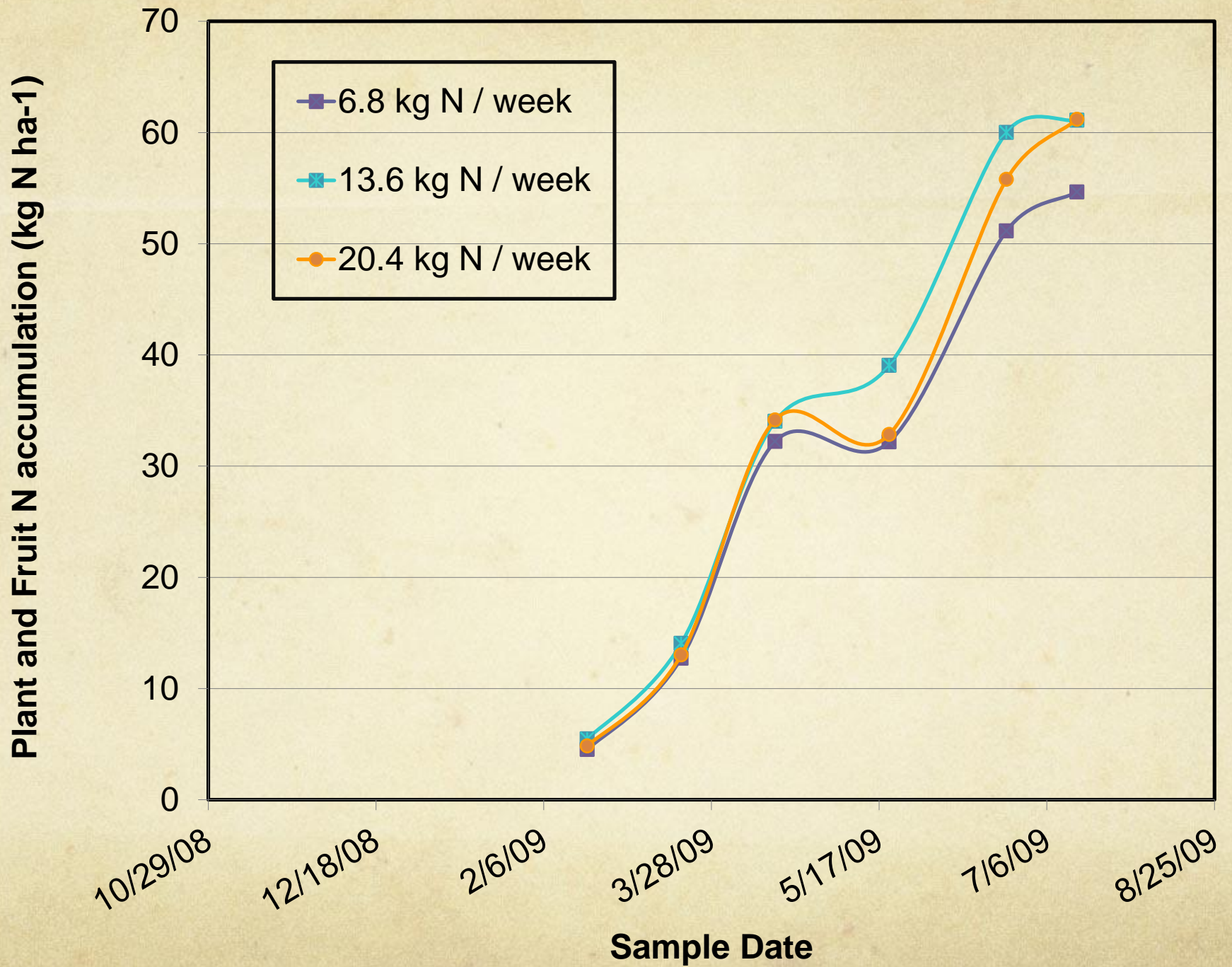
After remaining steady over the past two years, purchases of blueberries jumped 17 percentage points in the past year, making them the commodity with the highest year-to-year growth. The likelihood of purchase increased according to household income and age, following a three-year trend in both instances. The likelihood of blueberry purchase in the Northeast increased from 58% last year to more than 70% this year. The likelihood of organic purchase decreased 11 percentage points in the past year, with 15% of consumers saying they bought organic at least some of the time. The likelihood of an organic-only purchase dropped 80% from Fresh Trends 2009. However, blueberries were the No. 2 fruit that consumers bought organic at least some of the time. Western consumers and single shoppers were most likely to buy organic blueberries exclusively. Of those who bought organic blueberries, nearly half (48%) said they purchased organic product less than 10% of the time.

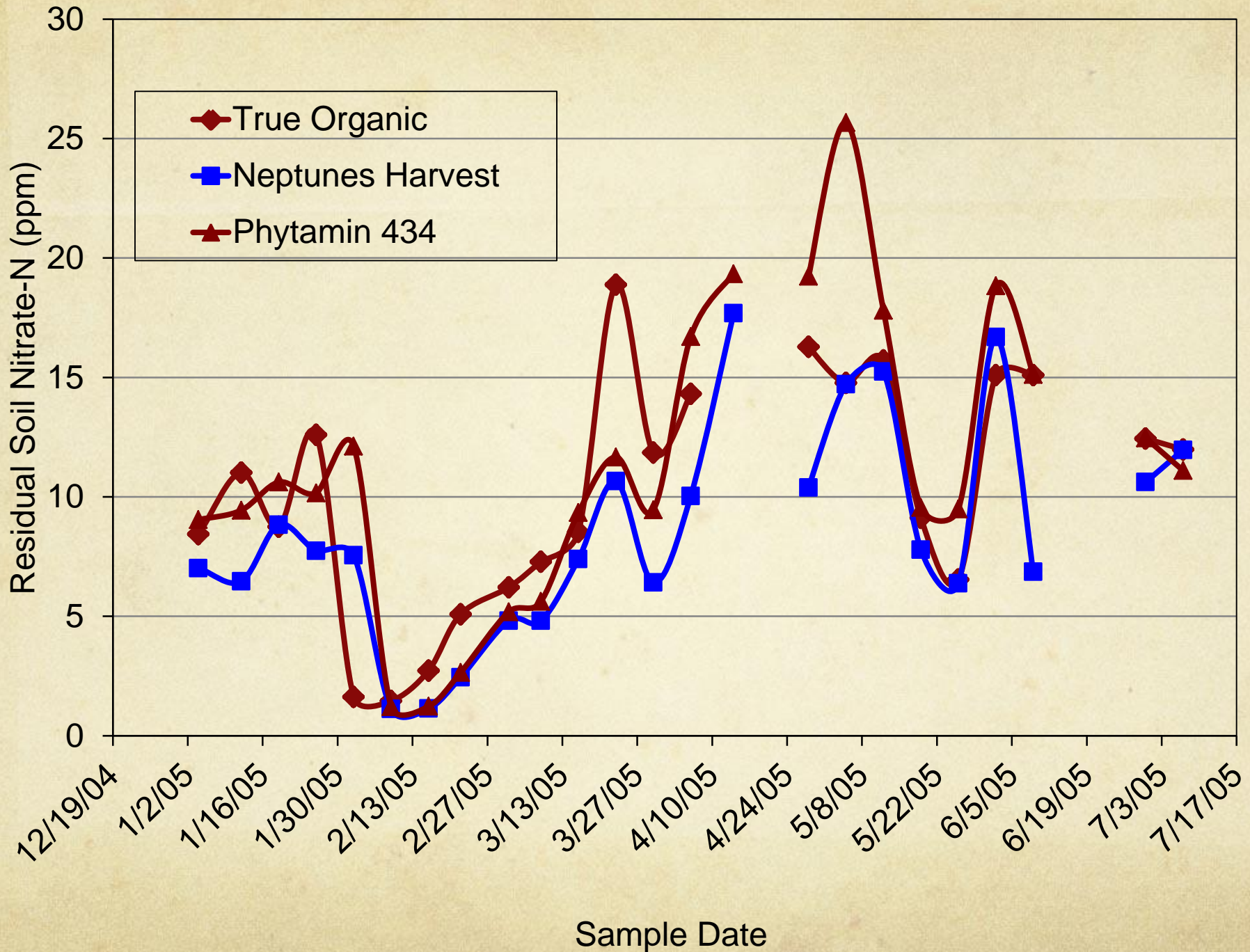
Major berry shippers adding organic line – not always to benefit of growers Blueberry demand + organic

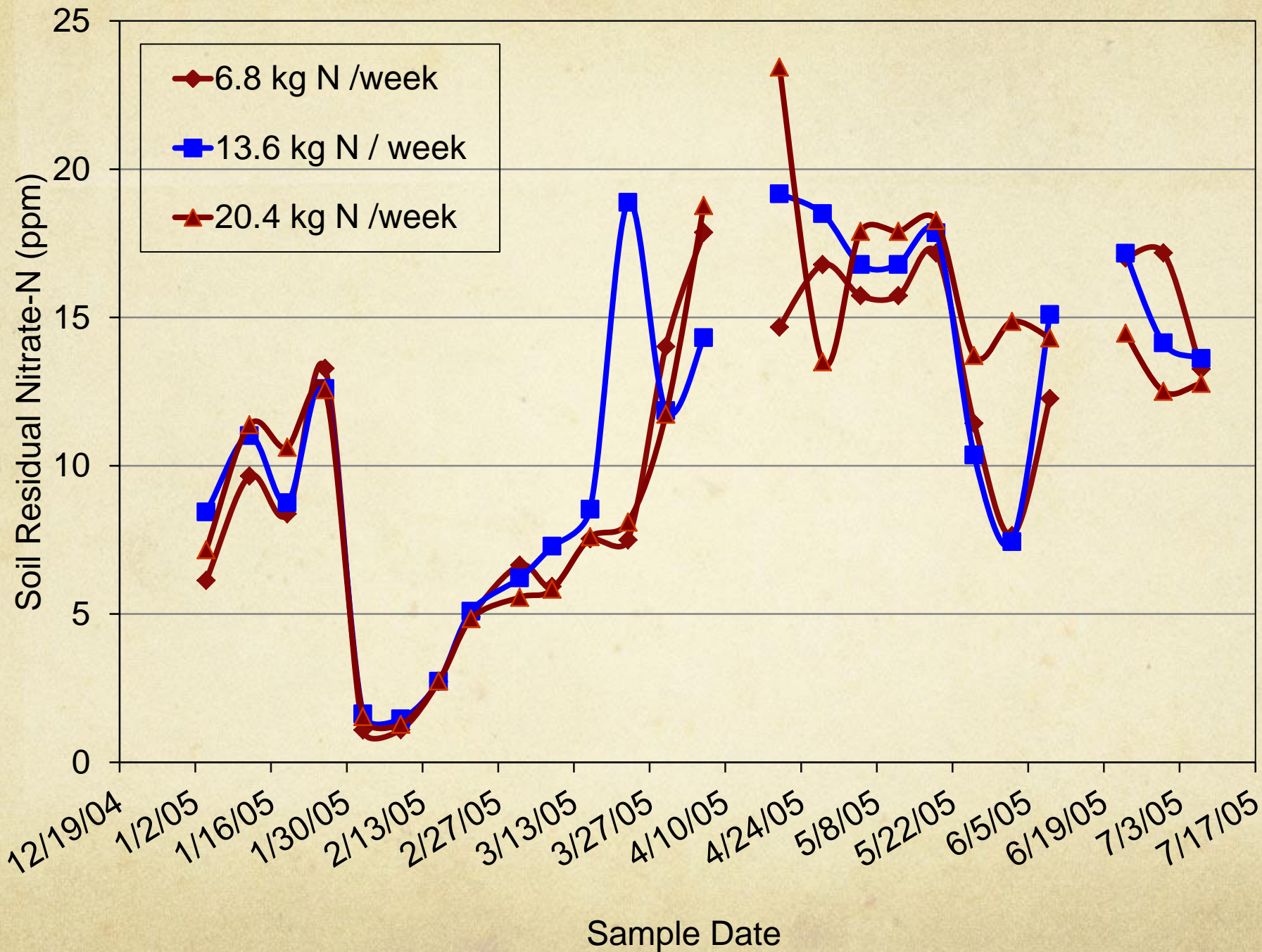
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Four significant developments have occurred that amplify opportunity for certified organic growers to successfully grow organic highbush blueberry and to increase or transition acreage. First, there is the recent USDA national organic standardization that defines organic production practices and crop labels that creates clarity and evens competition. Second, we have the continued increase of smallfruit and vegetable sales related to nutritional and human health reasons that strongly contribute in creating today's \$40,000,000 highbush blueberry market in NJ. Future agribusiness gains are promising through the "organic certification" market segment. This organic designation appeals to today's consumer as an even higher market value and creates a separate market segment above the fresh market







Manejo de suelos y nutrición de la planta

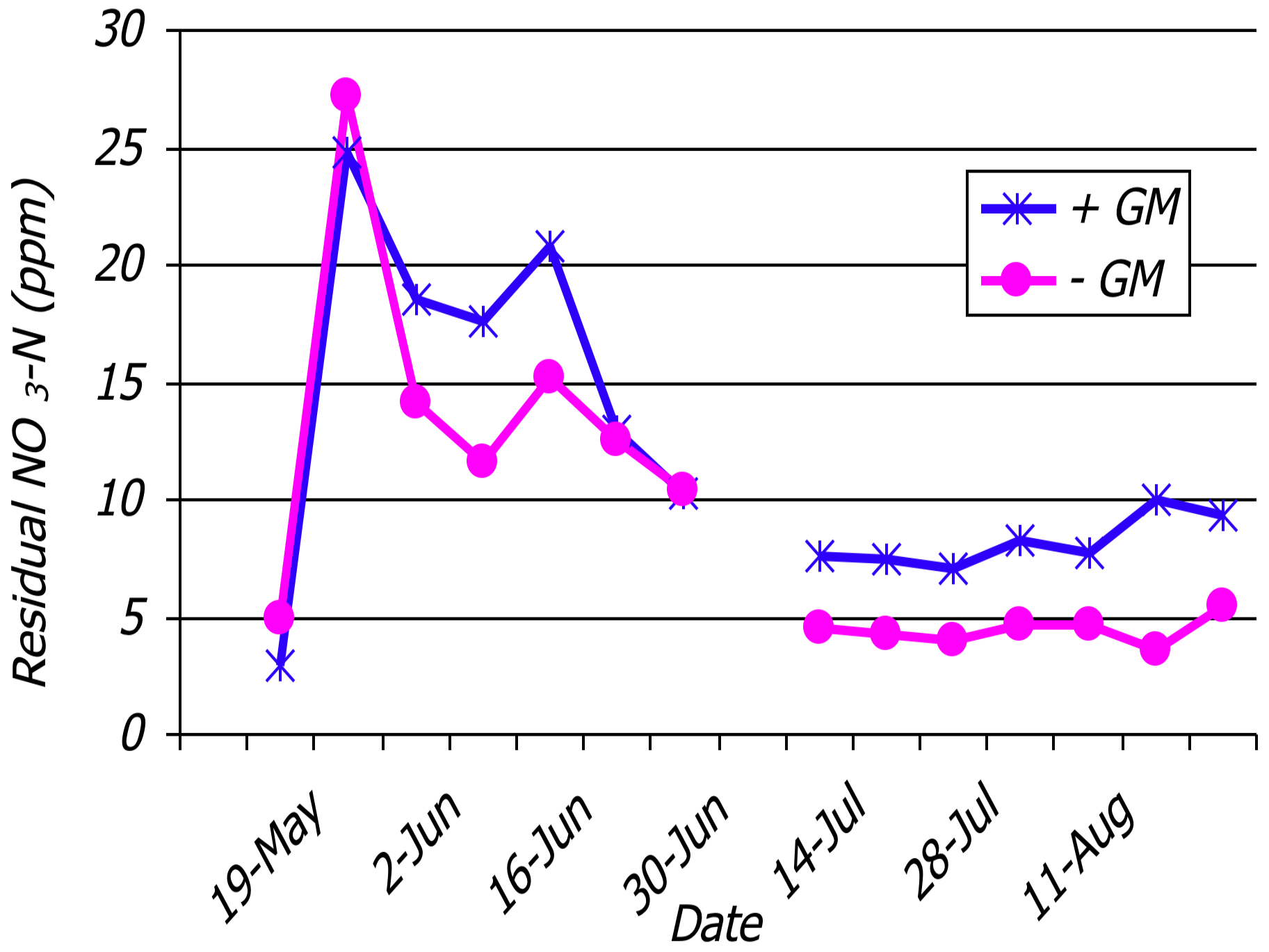


Énfasis en nitrógeno?

- *Típicamente el factor limitante*
- *Formas de nitrógeno constantemente cambian*
- *Fosforo y potasio menos problemáticos*
 - *compuesta, en polvo, granulares, líquidos*
 - *tendencia de aumentar*
 - *aplicaciones pre-siembra y anuales con materiales económicos – manejo al largo plazo*

La fertilización durante le temporada

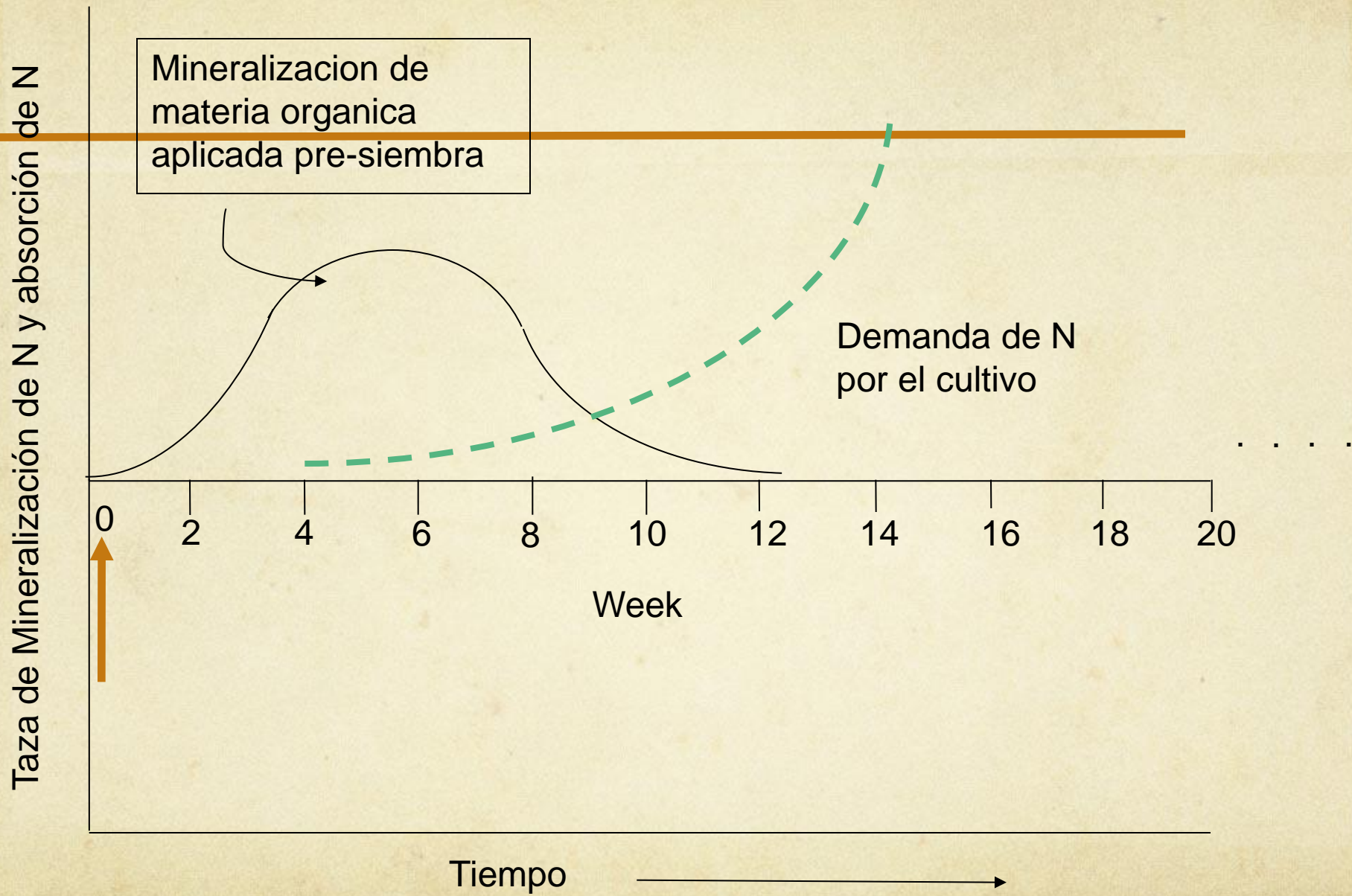
- *Presiembra tiene limitaciones con nitrógeno*
- *Es necesario la mineralización para disponibilidad*
- proceso biológico, variabilidad
- *Diferentes materiales comerciales con acción diferente, secas en bulto, peletizados, líquidos*
- *Material determina el uso, facilidad, uniformidad,*
- bio-disponibilidad



Otros factores claves

- *Determinación de necesidades de N durante la temporada*
- *Necesidades diferentes con suelos diferentes*
 - *materia orgánica, humedad, te*
- *Fuentes de nutrientes orgánicos?*
 - *tipos de fertilizantes y su manejo?*
- *Manejo materiales líquidos orgánicos*





Taza de Mineralización de N y absorción de N

Mineralización de materia organica aplicada pre-siembra

Demanda de N por el cultivo

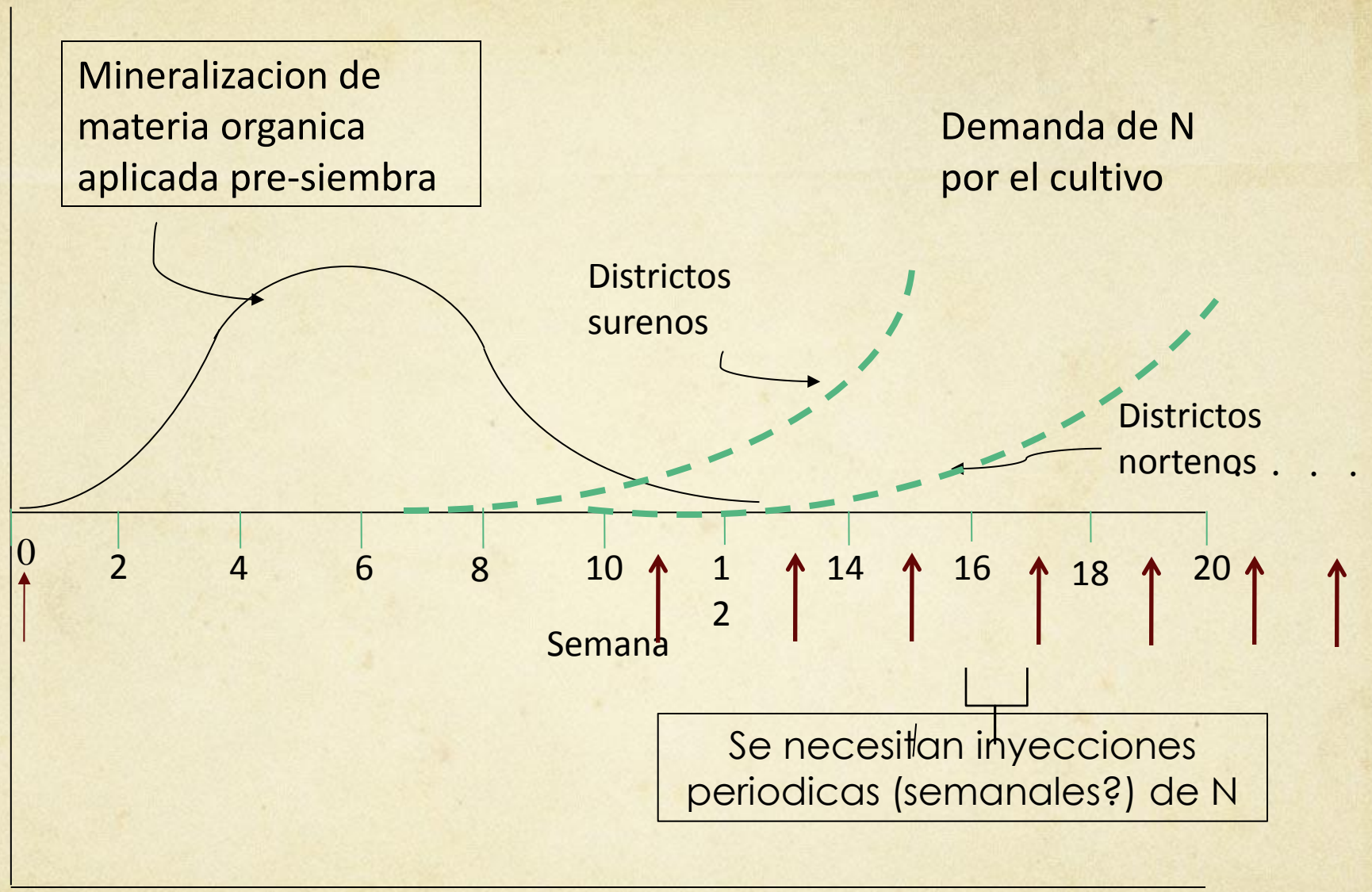
Districtos sureños

Districtos nortenos . . .

0 2 4 6 8 10 12 14 16 18 20
Semana

Se necesitan inyecciones periodicas (semanales?) de N

Tiempo



Drosophila suzukii,

- *“Spotted wing drosophila”*
- *mosca con las alas manchada*
- *Ampliamente encontrada por California*
- *a dentro dos años*
- *Pocos productos disponibles*
- *mejores hasta el momento son:*
Pyganic, pyrellin
Pyganic mas Azadiractin (neem) o Entrust (Success)
- *Importante la recolección de toda la fruta de los campos*



Determinación de necesidades durante la temporada

- *Patrones de absorción por la planta
- cantidad y periodo*
- *Pruebas de respuesta del cultivo*
- *Presupuesto de N basado en fuentes de N
- cantidad y periodo*