

**Testimony of Scott M. DiMare  
Vice President and Director of Farm Operations, DiMare Ruskin Inc.**

**Before the U.S. House of Representatives**

**Committee on Energy and Commerce**

**Subcommittee on Energy and Power**

**July 18, 2012**

Chairman Whitfield, Ranking Minority Member, Mr. Waxman, and members of the subcommittee, my name is Scott DiMare. I am the Vice President and Director of Farm Operations for DiMare, Ruskin, Inc. a family farm headquartered in Florida. We have been in continuous operation for over three generations with our production focused on fresh market tomatoes. We are part of the industry that provides a majority of the fresh tomatoes available to the U.S. population during the fall, winter and spring months. This industry has averaged 400 to 600 million dollars of farm gate revenue each production season. The farms I oversee are located in the Ruskin/Palmetto growing region southeast of Tampa in central Florida. Our primary production seasons include a spring crop that is transplanted in January and February and a fall crop that is transplanted in late August. The success of this cropping system is highly dependent on the ability to control weeds, plant pathogens and nematodes through a pre-plant fumigation that takes place when the plastic mulch is placed in the field. Historically this was accomplished through the use of methyl bromide – the subject of today’s hearings.

It is important to note that this crop production activity is done at the onset of the crop and serves as the foundation for all aspects of successful crop management during the subsequent growing season. Prior to the regulatory phase-down on production and availability of methyl bromide under the Montreal Protocol, the preferred fumigation treatment comprised an in-bed shanked application of either methyl bromide 98:2 or methyl bromide 67:33. The different formulation of methyl bromide in combination with chloropicrin, were used dependent on the history of the farm and the prevalence of soil borne pathogens. These treatments were highly efficacious and did not require the additional application of other crop protectant materials to

ensure efficacy. The availability of methyl bromide under the current regulatory process has resulted in the loss of access to these formulations.

The distribution and application of methyl bromide is highly specialized and varies by the region of the country. In Florida, the farm-level application of the materials is done by the grower rather than by custom applicators as is generally the situation in other areas of the country. We as a grower community have not had access to any formulation other than 50:50 methyl bromide (50 % methyl bromide, 50 % chloropicrin) for the past three control periods under the US Clean Air Act and this was limited to rates that are only marginally effective. While the regulatory process has identified quantities of methyl bromide as “available stocks” these reserves of the active ingredient are not accessible by our industry. The “available stocks” are in the channels of trade and it is believed that those stocks are being held by various third parties including chemical distributors and applicators for other non-agricultural uses.

As an active participant in the Florida Fruit and Vegetable Association and the Florida Tomato Exchange, we have been heavily engaged in the USDA Agricultural Research Service, University of Florida – Institute for Food and Agricultural Sciences and commercial research for all of the proposed methyl bromide alternatives that have been identified over the past fifteen years.

We have made major commitments and capital expenditures to test the “Three Way” system, that includes 1,3-dichloropropene and chloropicrin co-applied with metam sodium; the “Yeutter Rig” broadcast application of 1,3-dichloropropene followed by in-bed shanked applications of

chloropicrin; in-bed shanked and drip applied iodomethane; and shanked in-bed applications of dimethyl disulfide (DMDS). The current fumigation program at the farms I manage is centered on the use of Pic-Chlor<sup>®</sup> 60, a combination of 1,3-dichloropropene and chloropicrin.

In our multiyear experience this alternative program to methyl bromide is highly variable and has proven to be much more inconsistent in efficacy even when conditions appear to be nearly identical to those that result in acceptable levels of control. More problematic is the resurgence of pest populations and the overall continuous increase from year to year in specific troublesome pests. The primary increases are being seen in weeds as evidenced by both yellow and purple nutsedge, and also in the soil borne pathogen fusarium crown rot. Just as important, we are also seeing increase in population and corresponding impacts of rootknot nematodes during the production season, especially during periods of weather related stress. Attached are photographs from a recent tour that illustrate the level of some of the impacts during the past growing season.

One of the problems confronting plastic mulched production systems in Florida is the overall decline in tomato plant health and vigor as production practices have shifted to the alternatives. It has been observed that the general ability of the crops to withstand historical stresses, including weather related phenomena and low levels of pest pressure, have resulted in larger than anticipated impacts from both yield and quality perspectives.

Each potential methyl bromide alternative has its own set of characteristics, generating its own particular impacts on the treated crop. In short, the alternatives are not uniform regarding their timing, rates of application and their comparative efficacy across the total pest spectrum

commonly encountered that require the fumigation treatment. Methyl bromide is consistently reliable when used at the appropriate rates. Our experience shows us that at a certain rate, we are confident that application can be made relatively close (e.g., with two weeks) of the transplanting date without crop injury, and we know it will be efficacious. However, the potential alternatives requires that they be applied with a much longer pre-planting interval. As a result the grower is at greater risk of some event adversely impacting the efficacy of the alternative treatment from the time the soil is treated until the crop is planted.

The uncertainty alternatives have created over established tomato cropping patterns has led to wholesale changes in the risks associated with each tomato crop. We currently face unknowns surrounding the required plant back-period associated with the alternatives under the different conditions dictated by the seasonal aspects of our production window – continuous production over the fall, winter and spring months. This uncertainty has led to initiation of the fumigation season as much as one and a half to two months earlier than that required when methyl bromide was available. This then leads to tremendously increased risk to the production system due to the highly variable weather conditions that occur in Florida. For the summer fumigations this increases the risk from tropical weather systems. During the December, January and February fumigation period for the spring crop, the erratic nature of cold temperatures and periodic rainfall disrupts the subsequent planting schedules. This is due to the inability of the alternatives to disperse properly within the bed leaving phytotoxic residues for much longer periods of time. This inability to maintain ideal conditions soil and bed conditions associated with efficacy for the alternatives also leads to highly variable pest control in the subsequent or second crop.

As an industry that is struggling to remain competitive in the globally expanding sourcing of fresh vegetables, we have seen our fumigation costs triple since the mainstay of our production system, methyl bromide, has come under regulatory restrictions dictated by the Montreal Protocol on Substances that Deplete the Ozone Layer and its implementation under the US Clean Air Act. We are encouraged by the legislation being discussed before this subcommittee today. While we support the goals of both the Montreal Protocol and the Clean Air Act, we feel that the currently highly restrictive view of the U.S. obligations under the Treaty have resulted in unnecessary and extremely costly impacts to our industry.

We have made significant advancements through technology and management changes to minimize the emissions that result from our use of the regulated substance. It is hoped that as we face the pressures created by the shifting pest populations on the land we farm that this invaluable tool will indeed be available to growers to utilize where the situation warrants.

Thank you for your attention and I look forward to your deliberations today, I will be happy to answer any questions you may have.

**Photographs from Tomato Production Areas, April 2012**



Purple Nutsedge in Tomato Production Field – Approximately 21 Days Post Transplant  
(Ruskin Palmetto Production Area)

April 2012

Third Season of Pic-Chlor 60 Use This Farm



Fusarium Crown rot, at first Harvest  
(Ruskin Palmetto Production Area)  
April 2012  
Third Season of Pic-Chlor 60 Use On This Farm