

APSA 80: a personal introduction

Opinion

At a fuel stop in early 2011, I met a gentleman fueling up his flatbed work truck. His truck had various tools and equipment from his trade: rubber work boots well used shovels, hoses, etc. The truck and equipment had obviously been off road and had residue dust and splattering of mud on it and its cargo. As men often do, I asked him what he did. He said, "I am a re-search farmer for CSU in Fort Collins, Colorado." My wife had recently come across reference to a farm product named APSA 80 on line. I had heard of APSA 80 (All Purpose Spray Adjuvant 80% active ingredient) a couple of times at various meetings I had attended, but hardly knew what it was, what it was for, nor what it stood for at this time. To make conversation, I asked him, "Have you ever heard of a farm product called APSA 80?" He answered, "Oh yes! I grew up on a farm in Nebraska and my Dad has been using it for years. He declares that APSA 80 is the best thing that ever came to the farms." He further explained that his farming was detailed and directed by the research department at CSU and therefore he did not use it unless so directed but knew it was an excellent product.

That got my attention. For somebody who has spent over 40 years in the building trades, I instantly recognized the power of personal experience and leverage of bottom lines and honor for expertise in trades of all kinds. What better testimony than from a total stranger with no obvious skin in the game offering endorsement for a product I had barely heard of and knew nothing about, and especially from one recognized as a practical authority in farming by one of the prestigious agricultural universities in the country.

That chance meeting by circumstance began one of the most interesting, exciting and rewarding adventures of my life. He gave me the names and contacts for two or three of his directing re-searchers at CSU. I promptly called them. Although their personal experience and knowledge of the products was not extensive, their questions opened the door of my mind for an amazing learning curve journey. I had no answers for them, but began to make phone calls to various people and the manufacturing corporation B2B (Business To Business) department in pursuit of answers to their questions. B2B gave me the contact information for Stan Evans.

Stan Evans was referred to as "The expert" in the agriculture products." Stan had started using a prior generation product LOC (Liquid Organic Cleaner) as an adjuvant in the various chemicals and fertilizers used on his farm/ranch near Haigler, NE over 40 years ago. While he knew it was a very effective surfactant/adjuvant that made his various applications more effective and his equipment clean and operational with less clogging and down time, he was not aware he was also mitigating compaction in his soils.

Again by chance and circumstance, a USDA research scientist by the name of Michael Petersen met Stan Evans. Over a long career with USDA Michael Petersen dug literally hundreds of six foot deep trench pits in corn fields to study compaction issues and root zone developments. He dug such a profile hole in one of Stan's fields and came out of it amazed. He asked Stan what he was doing that no one else he had ever dug a pit for was doing. He further reported that Stan

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had no compaction to six feet and the corn roots were trailing down more than five feet. Stan responded that all he could think of was the use of Apsa 80 as an adjuvant at the rate of 15-30 oz per acre with his sprays.

The above meeting also brought together Michael Petersen and Ernie Brumbaugh. Ernie has been the lead R&D Scientist in the research labs for the Amway Corporation for decades. Ernie Brumbaugh and Michael Petersen began a compaction study in corn using conventional tillage at The IRF (Irrigation Research Foundation) near Yuma, CO in the late 1990's. After four years they published

"THE USE OF A NON-IONIC SURFACTANT TO ALLEVIATE THE EFFECTS OF COMPACTED SOIL ON CORN (ZEA MAYS) YIELD AND ROOT GROWTH". They were honored to present this research at the Sixth International Symposium on Adjuvants for Agrochemicals in Amsterdam, Netherlands in 2001.

Since that time well over \$1 M of research has been invested in research of the agricultural products manufactured and distributed by the Amway Corporation. In fact the four year study referred to was extended to nine years. Without a miss, the treated plots always performed better at a profitable level over the controls. The average increase in production on irrigated corn was shown to be 17.6 bushels per acre. Furthermore, the confidence level after nine consistent years is greater than 95%.

A recent (fall 2012) research report by the University of Florida which can be pulled up on line titled "Application of Surfactants in Commercial Crop Production for Water and Nutrient Management in Sandy Soil", confirms all of the research that Ernie Brumbaugh has managed for more than twenty years on this exact subject. They say, "Water repellency affects the wetting pattern of soil and may result in uneven wetting pattern. It can also result in large yield reductions in dry seasons and contribute to late starts to the growing season." The report goes on to recommend, "With surfactants, commercially grown vegetable crops can obtain water and nutrients more efficiently (Sarval 2003). These effects of surfactants on soil quality may enhance yield and profitability for commercial crop production in Florida's sandy soils."

The research of Ernie Brumbaugh which began in concert with Michael Petersen USDA (retired) would expand the horizons far beyond the sandy soils of Florida and far beyond vegetable crops. His work has been done in multiple states, many if not most soil types and

crops. The work has grown to include orchards, vineyards, berries, coffee and more. In fact I heard a motto for my life at a seminar in Louisville, KY in 2012, "If it is growing, we can make it better."

That quote has stayed with me ever since and opened my eyes and a door for spraying trees of all kinds in the Colorado Rockies. The results have been nigh unto miraculous, but since this paper was titled, 'A Personal Introduction,' I will leave the details for a later article."

Brian O Donahue is 66 and lives with his wife, Rosemary near Estes Park, Colorado. He and his wife have owned several businesses, one called BRD Enterprises which markets APSA 80 along with other

agricultural products. They have attended dozens of seminars and farm fairs. Brian is a certified consultant for these products and has done numerous seminars in several states. For further information Brian can be contacted at: brian.apsa.asap@gmail.com

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Conflict of interest

The author declares no conflict of interest.