Pumpkin (*Cucurbita moschata* Duch. ex Poir.) is one of the most popular summer vegetables, grown all over India, on a commercial scale for its immature and mature fruits. They are used as fresh vegetable, processed food and stock feed, sometimes young tender tops of shoots and leaves are also cooked as vegetable. Because of its high carotene content and good keeping quality, it is considered as a vegetable of immense value (Thamburaj and Singh, 2005). Under intensive cropping, pumpkin is successfully grown as a remunerative vegetable in Gangetic alluvium of West Bengal due to its low-cost of production and long keeping quality, but over the past decade, arsenic contamination in groundwater has been reported from these areas (Mitra et al., 2002; Pandey *et al.*, 2002). The word arsenic itself now-a-days sounds as a serious threat and cure to the human race because of its capability of causing terrible health hazards to human beings (Srivastava *et al.*, 2001; Rahman, 2002). The World Health Organization (WHO) ranked this calamity as “the largest poisoning of a population in history” (Smith *et al.*, 2000). Out of 20 countries in different parts of the world where groundwater arsenic contaminations and human suffering have been reported so far, the magnitude is considered to be the maximum in Bangladesh, followed by West Bengal, India (Sanyal, 2005). It causes serious problem in Gangetic alluvium of India and Bangladesh through contamination of groundwater and drinking water (WHO, 2001). The emerging areas of arsenic hazards in agricultural systems through use of contaminated irrigation water and entry of toxin in crops has been largely avoided. Increased arsenic levels in groundwater-irrigated soil in West Bengal were well documented by Sanyal and Nasar (2002) and uptake of arsenic by crop plants grown in soils contaminated with high concentration of arsenic being (Srivastava *et al.*, 2001; Rahman, 2002). The World Health Organization (WHO) ranked this calamity as “the largest poisoning of a population in history” (Smith *et al.*, 2000). Out of 20 countries in different parts of the world where groundwater arsenic contaminations and human suffering have been reported so far, the magnitude is considered to be the maximum in Bangladesh, followed by West Bengal, India (Sanyal, 2005). It causes serious problem in Gangetic alluvium of India and Bangladesh through contamination of groundwater and drinking water (WHO, 2001). The emerging areas of arsenic hazards in agricultural systems through use of contaminated irrigation water and entry of toxin in crops has been largely avoided. Increased arsenic levels in groundwater-irrigated soil in West Bengal were well documented by Sanyal and Nasar (2002) and uptake of arsenic by crop plants grown in soils contaminated with high concentration of arsenic being (Srivastava *et al.*, 2001; Rahman, 2002). The World Health Organization (WHO) ranked this calamity as “the largest poisoning of a population in history” (Smith *et al.*, 2000). Out of 20 countries in different parts of the world where groundwater arsenic contaminations and human suffering have been reported so far, the magnitude is considered to be the maximum in Bangladesh, followed by West Bengal, India (Sanyal, 2005). It causes serious problem in Gangetic alluvium of India and Bangladesh through contamination of groundwater and drinking water (WHO, 2001). The emerging areas of arsenic hazards in agricultural systems through use of contaminated irrigation water and entry of toxin in crops has been largely avoided. Increased arsenic levels in groundwater-irrigated soil in West Bengal were well documented by Sanyal and Nasar (2002) and uptake of arsenic by crop plants grown in soils contaminated with high concentration of arsenic being (Srivastava *et al.*, 2001; Rahman, 2002). The World Health Organization (WHO) ranked this calamity as “the largest poisoning of a population in history” (Smith *et al.*, 2000). Out of 20 countries in different parts of the world where groundwater arsenic contaminations and human suffering have been reported so far, the magnitude is considered to be the maximum in Bangladesh, followed by West Bengal, India (Sanyal, 2005). It causes serious problem in Gangetic alluvium of India and Bangladesh through contamination of groundwater and drinking water (WHO, 2001). The emerging areas of arsenic hazards in agricultural systems through use of contaminated irrigation water and entry of toxin in crops has been largely avoided. Increased arsenic levels in groundwater-irrigated soil in West Bengal were well documented by Sanyal and Nasar (2002) and uptake of arsenic by crop plants grown in soils contaminated with high concentration of arsenic